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LIST

OF THE

SPECIMENS

OF

HOMOPTEROUS INSECTS

IN

THE COLLECTION

OF THE

BRITISH MUSEUM.

8064

1852

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PART IV.
—

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INTRODUCTION.

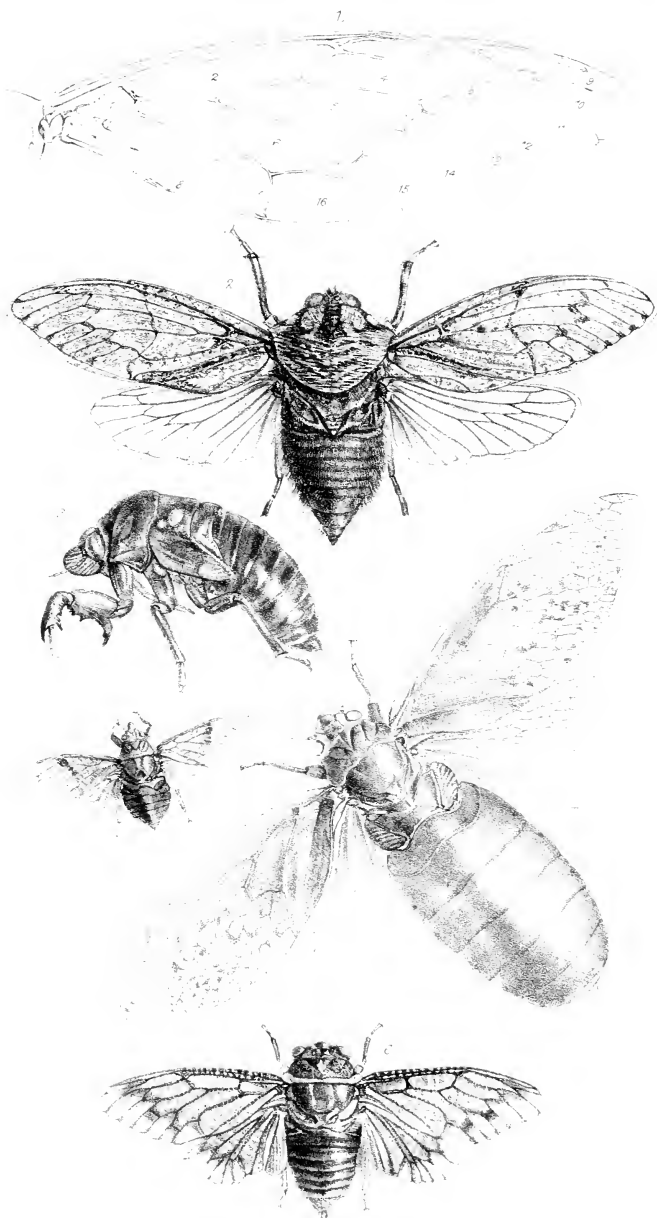
THE principal object of the present Catalogue has been to give a complete list of the specimens of Homopterous Insects contained in the collection of the British Museum, indicating at the same time the peculiarities of each, as regards variation of character, locality, and the source from whence it has been derived. With this view, the different individuals of each species contained in the collection are indicated by the letters *a*, *b*, *c*, &c., following the name of the species and its synonyms, and the description, if it appeared to have been before undescribed.

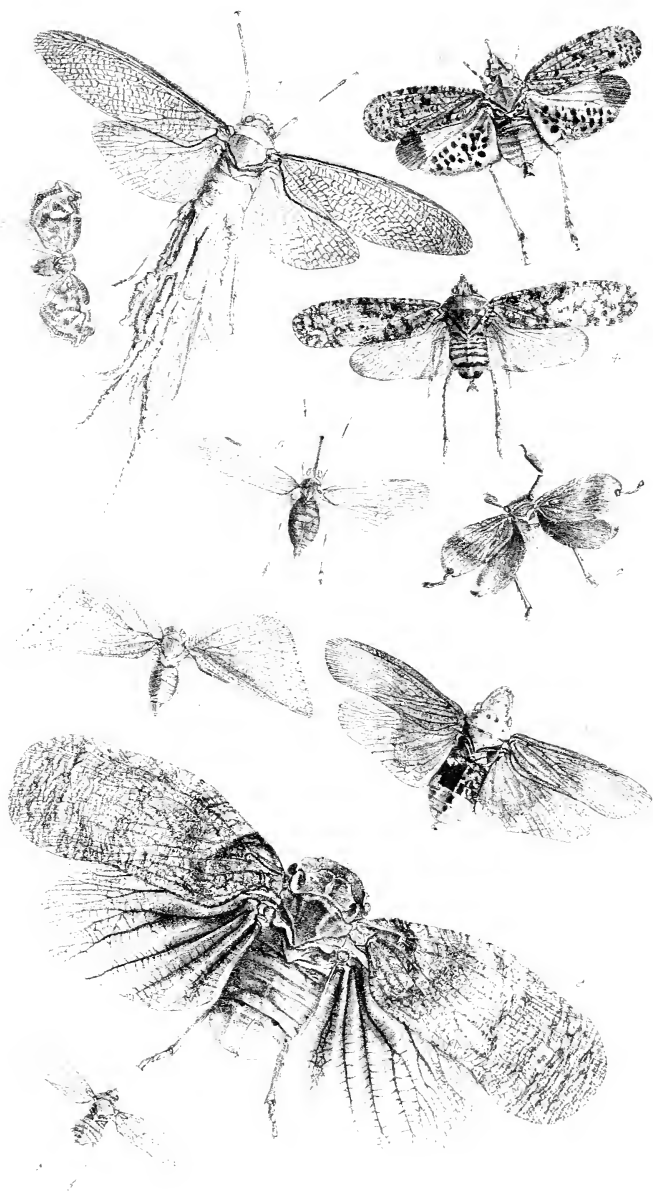
This part of the Catalogue of Homopterous Insects has been prepared and the new species described by Mr. FRANCIS WALKER, so well known for his attention to this order of Insects.

JOHN EDWARD GRAY.

British Museum,
Dec. 30th, 1851.







EXPLANATION OF PLATES.

TAB. I.

- Fig. 1. *Dundubia diminuta*
" 2. *Fidicina nivifera*
" 3. *Tettigades compacta*
" 4. *Zammara smaragdina*
" 5. *Cicada tristigma*
" 6. *Thopha*, (New sp.).

TAB. II.

- Fig. 1. Wing of *Cyclochila honesta*
" 2. *Tettigarcta tomentosa*
" 3. Pupa do.
" 4. *Cystosoma Saundersii*
" 5. *Mogannia ignifera*
" 6. *Cicada aurora*

TAB. III.

- Fig. 1. *Pterodictya ephemera*
" 2. *Enchophora sicca*
" 3. *Flatoides retractus*
" 4. *Dichoptera smaragdina*
" 5. *Dictiophora chlorochroma*
" 6. *Ancyra appendiculata*
" 7. *Phyllyphanta producta*
" 8. *Rhinortha guttata*
" 9. *Paralystra Emma*
" 10. *Aselgeira ramulifera*

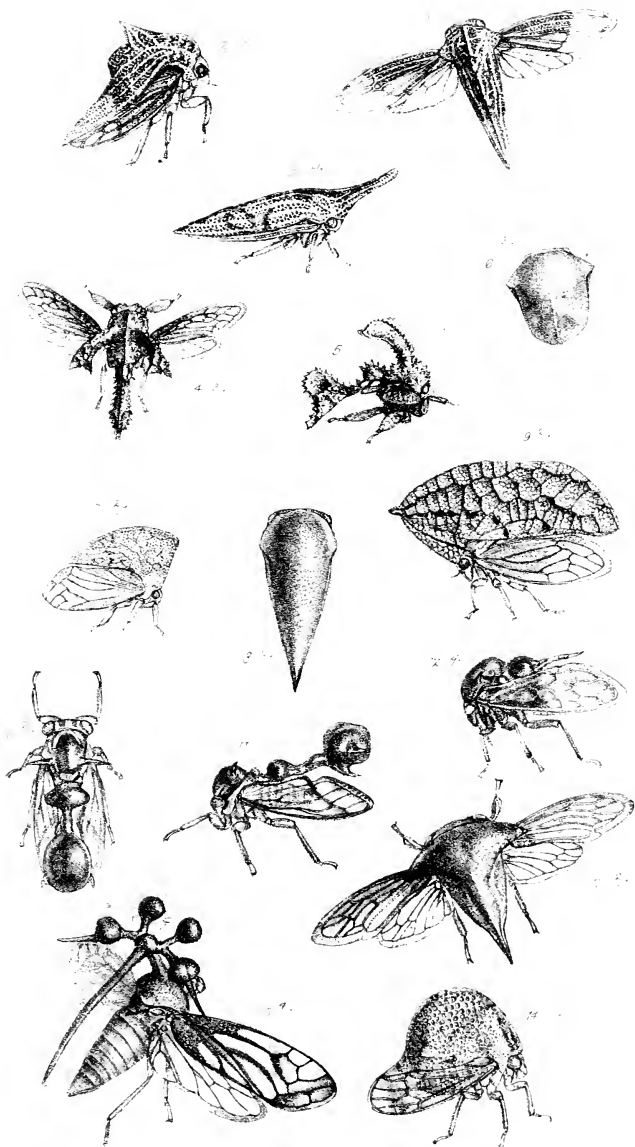
TAB. IV.

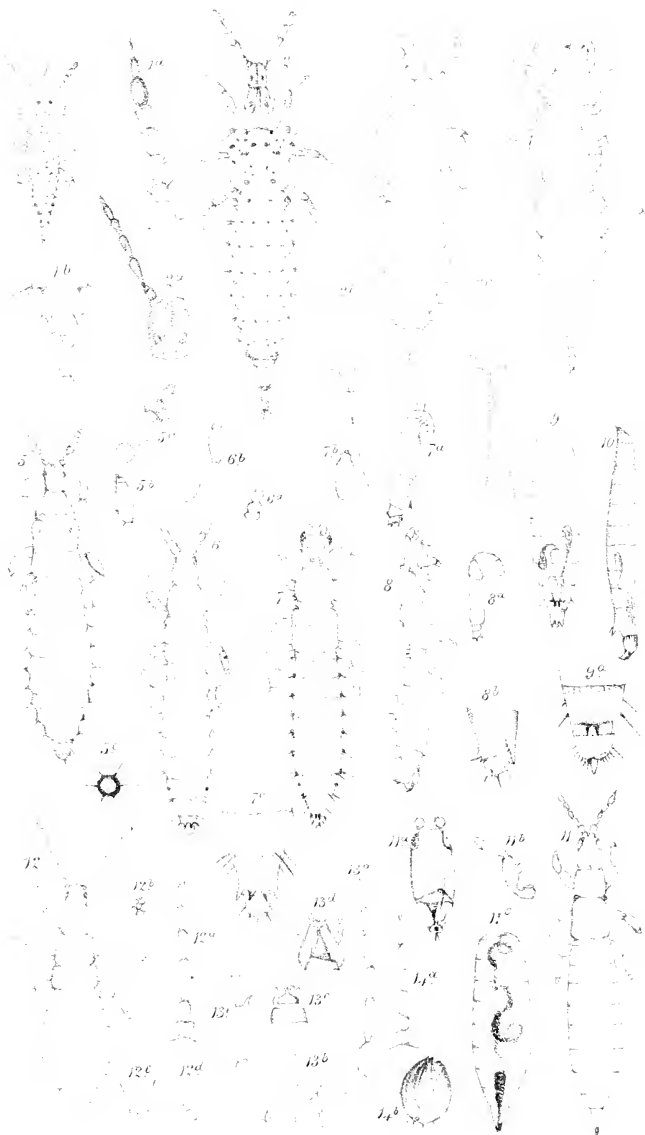
- Fig. 1, 2. *Oxygonia auriflua*
 „ 3. *Polyglypta dorsalis*
 „ 4, 5. *Pterygia horrifica*
 „ 6. *Tragopa tetyrides*
 „ 7. *Membracis marginalis*
 „ 8. *Darnis convoluta*
 „ 9. *Æda inflata*, *Fab.*
 „ 10, 11. *Heteronotus excisus*
 „ 12. *Ceresa incrassata*
 „ 13. *Hemiptycha brevis*
 „ 14. *Combophora consentanea*
 „ 15. *Bocyidium globulare*, *Fab.*

TAB. V.

PHYSAPODA.

- Fig. 1. *Thrips Ulmi*. Young larva. *a.* Antenna. *b.* End of abdomen.
 „ 2. Larva. *a.* Head. *b, c.* Mouth of larva.
 „ 3. Propupa.
 „ 4. Pupa.
 „ 5. *Aptinothrips rufa*, larva, ♀. *a.* Antenna without the two basal joints. *b.* Tibia. *c.* Terminal orifice of abdomen with the whorl of hairs.
 „ 6. Propupa, ♀. *a.* Antenna. *b.* Fore leg.
 „ 7. Pupa, ♀. *a.* Antenna. *b.* Tibia. *c.* End of abdomen.
 „ 8. Pupa, ♀, lateral view. *a.* Antenna. *b.* End of abdomen.
 „ 9. Abdomen of *A. rufa*, ♂, vertical view. *a.* End of abdomen.
 „ 10. Do., side view.
 „ 11. *A. rufa*, ♀. *a.* Face. *b.* Fore leg. *c.* Abdomen, with ventricle *in situ*.
 „ 12. *Melanthrips obesa*, larva. *a.* Antenna. *b.* Eye. *c, d.* Tail.
 „ 13. *a.* Antenna of imago. *b.* Maxilla. *c.* Labium. *d.* Mouth. *e.* Fore leg.
 „ 14. *Sericothrips*. *a.* Antennæ. 6. Hemelytron.







TAB. VI.

- Fig. 1. *Phlæothrips Ulmi*, imago. *a.* Face. *b.* Tongue? *c, d.* Maxillary palpus. *e.* End of mouth, with labial palpi. *f.* Base of maxilla, with the palpus. *g.* Hemelytron.
- „ 13. *Heliothrips*. *a.* Mouth. *b.* Maxillary palpus. 13, *c.* Antenna. 13, *d.* Apex of ditto.
- „ 2. *Phlæothrips coriacea*.
- „ 3. *Idolothrips Spectrum*.
- „ 4. *Limothrips cerealium*. Propupa, ♀. *a.* Head. *b.* Tarsus. *c.* End of abdomen.
- „ 5. Pupa, ♀. *a.* Hind leg. *b.* End of abdomen.
- „ 6. Pupa, ♂. *a.* End of abdomen.
- „ 15. Imago. *a.* Face. *b, c.* Maxillary palpus. *d.* Abdomen, ♂. *e.* End of abdomen, ♀. *f.* Ditto, side view. *g.* A spine. *h.* Labial palpus. *i, k.* Different views of labium.
- „ 7. *Thrips Physapus*, ♀, dorsal view. *b.* Ventral.
- „ 9. Profile. 10. Male.
- „ 11. End of abdomen of larva.
- „ 8, *a.* *Thrips obscura*. Last joint of antenna, with the style.
- „ 12. *Chirothrips*.
- „ 14. *Thrips vulgatissima*. *a, b.* Head. *c, d.* Part of mouth. *e.* Mandibles. *f.* Maxilla. *g.* Maxillary palpus.

TAB. VII.

- Fig. 1. Terminal segments in *Limothrips cerealium*, ♂ (*a, b*). *g.* Rectum. *e.* Testes. *f.* Vesicula. *d.* Utriculus. *c.* Exitus.
- „ 2, 3. Annulus analis cum virga recurva.
- „ 4. ♂. *a.* Utriculus. *b.* Canalis excretionis. *c.* Vesiculæ. *d.* Testes.
- „ 5. Idem, a latere cum fibris suspensoriis. *f.* Rectum. *e.* Fibræ.
- „ 6. Abdomen, ♂.
- „ 7. Abdomen, ♂, *Thrips Urticæ*. 8. Apex.
- „ 9. Apex. 10. Exitus. *Thrips Physapus*.

- Fig. 12. Terebræ valvula, exterior. *Thrips atrata*.
 „ 13. „ „ interior. „ „
 „ 14. Terebra integra. „ „
 „ 15. Theca ex ovariis.
 „ 16. Vasa dubia gemina prope os, cum apicibus ovarii connexa, etiam in larvis obvia; in *Tubuliferis* pariter adsunt.
 „ 17. Ovum maturum.
 „ 19. Intestinum. *Thrips rufa*, ♀. a. Œsophagus. b. Ingluvies. c. Proventriculus. d. Duodenum. e. Intestinum tenue. f. Rectum. g. Vasa hepatica “malpighiana” dicta. h. Ductus salivæ? i. Vasa prædicta dubia.
 „ 20. Portio ejusdem. *Thrips vulgatissima*.
 „ 21. Insertio vasum hepaticorum.
 „ 22. Intestinum. *Sericothrips*.
 „ 23. Frustum e ductu salivari (optical deception?)
 „ 24. Intestinum. *Limothrips cerealium*, larva.
 „ 25. Vasa dubia. „ „
 „ 26. *Thrips obscura*. Ingluvies, &c.
 „ 27. Thorax, &c., a latere. *Thrips cerealium*.
 „ 28. Pagina infera. „ „
 „ 29. Portio magis aucta, ut exhibeat spiraculum prothoracis, &c.
 „ 30. Tracheæ in *Thr. rufa*.
 „ 31. *Coleothrips fasciata*. Head in front.
 „ 32. Do. behind. 33. Labium. 34. Maxillary palpus.
 „ 35. Labial palpus. 36. Maxilla. 37. Labrum.
 „ 38. Hemelytron, the hairs omitted. 39. Tarsus. 40. End of antenna. 41. Antenna of larva. 42. End of abdomen of larva.
 „ 43. *Thrips Ulicis*. Antenna.
 „ 44. Do. Fore tibia and tarsus.

TAB. VIII.

- Fig. 1. Medullary system of *Phlæothrips Pini*.
 „ 2. The position of cephalic lobes in pupa of *Thrips cerealium*, with the passage of Œsophagus.
 „ 3 and 4. The lobes of cephalic ganglion and emergence of Œsophagus in *Phlæothrips*. c. Œsophagus. d. Recurrent salivary duct of one side. e. Ingluvies.
 „ 5. Optic nerve.
 „ 6. Intestinal canal of *Phlæothrips*. a. Head. b. Œsophagus. c. Ingluvies. d. Proventriculus. f. Duodenum. g. Intestinum tenue. h. Vasa hepatica. i. Rectum.



- Fig. 7. Position of the rectum, with relation to the terminal segments. *P. Statice*.
- „ 8. Inflated insertion of malpighian vessels (*d.*) in a male of *P. Statice*. *a.* Duodenum. *b.* Small intestine. *c.* Rectum.
- „ 9, 10, 11. Reproductive system in *Phlæothrips*, ♂. *b''*. Testes. *b'*. Deferentia. *c.* Vesiculæ pares. *d, e.* Vesiculæ impares. *a.* Utriculus præ canali excretorio.
- „ 12. The ovaries of *P. Statice*, ♀.
- „ 13. Unfertilized ovary in ♀ newly transformed *P. Pini*.
- „ 14. End of one of the egg-sheaths.
- „ 15. Full-grown egg.
- „ 16. Do. in another stage?
- „ 17. Mouth with a salivary receptacle? *in situ*. *P. Pini*.
a. labrum. *c.* maxilla.
- „ 18. Excretory canal of saliva glands?
- „ 19. The saliva gland?
- „ 20. The pair, (see fig. 16 of plate 7).
- „ 21, 22. The two salivary receptacles of one side? (Very doubtful).
- „ 23. Tip of haustellum, *in situ*. *Phlæothrips*.
- „ 24. End of labrum.
- „ 25. End of maxillary palpus.
- „ 26. The labrum and maxilla in juxtaposition. *γ*. Double membranous lining of labrum.
- „ 27. Labrum.
- „ 28. Labium.
- „ 29. Mandibles.
- „ 30. Maxilla of *Idolothrips*.
- „ 31. End of mouth, with emerging mandibles.
- „ 32. Mandible or tongue.
- „ 33. Mouth of *Phlæothrips Pini*, larva.
- „ 34. Horny spots at base of do.

LIST

OF

HOMOPTEROUS INSECTS.

Order II. PHYTOPHTHIRES.

- Phytophthires et Coccina, *Burm. Handb. Ent.* ii. 1, 55.
 Aphidiæ, *Latr., Zett., Blanch.*
 Aphidii, *Fonscolombe.*
 Sternorhynchi.—Fam. 1. Phytophthires. Tribe 1. Hymenelytres.—
 2. Scytinelytres. Fam. 2. Phytathelges. Tribe 1. Lanisectes.
 —2. Gallinsectes.—*Amyot et Serv. Hist. Nat. Hém.* 588, 590,
 613, 618, 625.
 Dimera, *Westw. Intr. Ent.* ii. 434.

Fam. 1. PSYLLIDÆ.

- Psyllidæ, *Latr., Blanch., Westw., Curt.*
 Psyllodes, p., *Hartig.*
 Psyllodes, *Burm., Handb. Ent.* ii. 1, 95.
 Race Saltipedes, Group Psyllides, *Amyot et Serv. Hist. Nat. Hém.*
 590.

Genus 1. LIVIA.

- Livia, *Latr. Hist. Nat. Ins.* xii. 374. *Gen. Crust.* iii. 170, 399, 1.
Leuch, Samou., Curt., Dahlbom, Burm., Ahrens, Zett., Hartig,
Blanch., Amyot et Serv., Erichson, Foerster.
 Chermes, p., *Schrank.*
 Dariphia, *Illiger, Mag.* ii. 284.
 Psylla, p., *Latr., Haworth.*
 Psylla, p., *Fallen.*

1. LIVIA JUNCORUM.

Chermes Junci, *Baiersch. Flor.* 558. *Schrank, Faun. Boic.* ii. 1, 142, 1252.

Livia Juncorum, *Latr. Hist. Nat. Crust. &c.* xii. 374. *Gen. Crust.* viii. 170, 1, 399, 1, pl. 12, f. 1. *Leach, Edin. Enc.* ix. 125. *Samou. Comp.* 232, pl. 5, f. 11. *Haworth, Ent. Trans.* i. 252. *Illig. Mag.* i. 284. *Curt. Brit. Ent.* 492. *Burm. Handb. Ent.* ii. 1, 97, 1. *Dahlb. Scand. Ins.* 132. *Zett. Ins. Lapp.* 306, 52, 32, 1. *Blanch. Hist. Nat. Ins.* 1, 418. *Amyot et Serv. Hist. Nat. Hém.* 596, 1. *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 91.

Psylla Juncorum, *Latr. Bull. Soc. Philomat.* 1. *Hist. Nat. des Fourmis*, 322, pl. 12, f. 3.

Diraphia Juncorum, *Illig. Mag.* i. 284.

Livia, *Amyot, Ann. Soc. Ent. Fr.* 2me Série, v. 462, 515.

a—f. England. Presented by F. Walker, Esq.

g. France.

h, i. Sweden.

2. LIVIA VERNALIS.

Livia vernalis, *Fitch, The Senate*, No. 30, 64.

New York.

3. LIVIA FEMORALIS.

Livia femoralis, *Fitch, The Senate*, No. 30, 64.

New York.

4. LIVIA PALUDUM.

Livia Paludum, *Foerster, MSS.*

Var. *Juncorum*?

a. Prussia. Presented by F. Walker, Esq.

5. LIVIA LONGIPENNIS.

Rufa; antennæ corpore paullo breviores, apice nigrae; abdomen subtus flavum; alæ anticæ longæ, fusca, maculis sublimpidis ornata; alæ posticæ subcinerea.

Red: head flat above, with two tawny and slightly hairy lobes in front: feelers slender, slightly setaceous, a little shorter than the body, black towards the tips; first and second joints stout, short;

first much thicker than the second, and about twice its length: third and following long, successively decreasing in length; tenth spindle-shaped, terminating in a bristle: abdomen yellow beneath: fore-wings brown, with a few almost colourless spots; brand red, narrow, nearly half the length of the wing; veins ferruginous; upper fork at three-fifths of the length of the wing, its lower branch slightly undulating; lower fork about the middle of the wing, its upper fork full thrice the length of the lower: hind-wings slightly gray. Length of the body $2\frac{1}{2}$ lines; of the wings 7 lines.

a. Van Diemen's Land. From Mr. Shuckard's collection.

Genus 2. DIRAPHIA.

Diraphia, *Waga, Ann. Soc. Ent. Fr.* xi. 275. *Guér. Amyot et Serv. Hist. Nat. Hém.* 596.

1. DIRAPHIA LIMBATA.

Diraphia limbata, *Waga, Ann. Soc. Ent. Fr.* xi. 275. *Guér. Icon. Règ. Anim.* 1842, 293. *Amyot et Serv. Hist. Nat. Hém.* 597.

Diraphia, *Amyot, Ann. Soc. Ent. Fr.* 2me Série, v. 462, 515.

Poland.

Genus 3. LIVILLA.

Livilla, *Curt. Brit. Ent.* 625. *Foerster.*

Psylla, p., *Klug, Walzl., Germ.*

1. LIVILLA ULICIS.

Livilla Ulicis, *Curt. Brit. Ent.* 625. *Foerster, Psylloden, Verhandl. Naturhist. Vereins der Preuss. Rheinlande*, 1848, 3, 68, 1.

Psylla coleoprata, *Klug, Isis*, 1837, 277. *Walzl. Germ. Zeit. Ent.* i. 365.

Psylla Genistæ, *Germ.*

a—c. England. Presented by J. C. Dale, Esq.

d. France.

e. Prussia. Presented by F. Walker, Esq.

Genus 4. ARYTAINA.

Chermes, p., *Linn., Fabr., Gmel., Berk., Stew.*

Psylla (Section 3), *Hartig.*

Arytaina, *Foerster, Psylloden, Verhandlungen des Naturhistorischen Vereins der Preussischen Rheinlande*, 1848, 67.

Psylla, p., *Hartig.*

1. ARYTAINA SPARTII.

Arytaina Spartii, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 69.

Psylla Spartii, *Hartig, Germ. Zeitsch. Ent.* iii. 375, 9.

Psylla Ulicis, *Curt. Brit. Ent.* 565, 22, a.

a—d. England. Presented by F. Walker, Esq.

e. South of France. Presented by F. Walker, Esq.

f, g. Prussia. Presented by F. Walker, Esq.

h, i. Prussia. Presented by E. Doubleday, Esq.

j. ———? Presented by E. Doubleday, Esq.

2. ARYTAINA RADIATA.

Arytaina radiata, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 70.

Prussia.

Genus 5. PSYLLA.

Psylla, p., *Geoff. Ins. Par.* i. 484. *Latr., Burm.*

Chermes, p., *Linn., Fabr., Deg., Schrank, Gmel., Berk., Stew., Turt., Kirby & Spence, Hartig, Zeit.*

Psylla (Section 1), *Hartig, Germ. Ent. Zeit.* iii. 373.

Psylla, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 67.

1. PSYLLA ALNI.

Psylla Alni, *Geoff. Ins. Par.* i. 486, 3. *Latr. Gen. Crust.* iii. 169, 398, 1. *Leach, Edin. Enc.* ix. 125. *Samou. Comp.* 231. *Burm. Handb. Ent.* ii. 1, 98, 1. *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 70, 1.

Chermes Alni, *Linn. Faun. Succ.* 1008. *Syst. Nat.* i. 2, 738, 10. *Fabr. Sp. Ins.* ii. 391, 12. *Mant. Ins.* 318, 12. *Ent. Syst.* iv. 222, 12. *Syst. Rhyn.* 305, 12. *Deg. Ins.* iii. 96, 3, pl. 10, f. 8. *Frisch. Ins.* viii. 28, pl. 13. *Sulz. Ins.* pl. 12, f. 80. *Schæff. Elem.* pl. 39. *Hartig, Germ. Zeit. Ent.* iii. 373. *Gmel. Ed. Syst. Nat.* i. 4, 2212, 10. *Schrank, Faun. Boic.* ii. 1, 140, 1245. *Berk. Syn.* i. 121. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 711. *Shaw, Gen. Zool.* vi. 186, f. 3. *Zett. Faun. Lapp.* i. 556, 8. *Ins. Lapp.* 309, 8.

Clethropsylla, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 459.

a—d. England. Presented by F. Walker, Esq.

e, f. ———?

g, h. Prussia. Presented by E. Doubleday, Esq.

i, j. Prussia. Presented by F. Walker, Esq.

2. PSYLLA FUSCINERVIS.

Psylla fuscinervis, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 70, 2.

Prussia.

3. PSYLLA BUXI.

Chermes Buxi, *Linn. Syst. Nat.* ii. 738, 7. *Fabr. Sp. Ins.* ii. 391, 5. *Mant. Ins.* ii. 317, 5. *Ent. Syst.* iv. 221, 5. *Syst. Rhyn.* 304, 5. *Gmel. Ed. Syst. Nat.* i. 4, 2212, 7. *Réaum. Ins.* iii. pl. 19, f. 1—14. *Stew. El. Nat. Hist.* ii. 112. *Shaw, Gen. Zool.* vi. 187, pl. 59, f. *inf.* *Wood, Ill. Linn. Gen.* i. 114, pl. 40.

Psylla viridis, &c., *Geoff. Ins. Par.* i. 485, 2.

Psylla Buxi, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 71, 3.

a. Scotland. Presented by E. Doubleday, Esq.

b, c. England. Presented by F. Walker, Esq.

4. PSYLLA VISCI.

Psylla Visci, *Curt. Brit. Ent.* 565, 5, *a.* *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 71, 4.

Europe.

5. PSYLLA ULMI.

Psylla Ulmi, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 71, 5.

Chermes Ulmi, *Linn. Syst. Nat.* i. 2, 737, ii. 737, 4. *Faun. Suec.* 1002. *Fabr. Sp. Ins.* ii. 390, 2. *Mant. Ins.* 317, 2. *Ent. Syst.* iv. 221, 2. *Syst. Rhyn.* 303, 2. *Gmel. Ed. Syst. Nat.* i. 4, 2211, 2. *Schrank, Faun. Boic.* ii. 1, 141, 1250. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 710.

a. Prussia. Presented by F. Walker, Esq.

6. PSYLLA VIRIDIS.

Psylla cratægicola, Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 72, 6.

Psylla viridis, Hartig, *Germ. Ent. Zeit.* iii. 374, 3.

a, b. England. Presented by F. Walker, Esq.

c. ———?

d. ———? Presented by F. Walker, Esq.

e, g. Prussia. Presented by E. Doubleday, Esq.

7. PSYLLA MALI.

Psylla Mali, Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 72, 8.

Chermes Mali, Schmidberger, Kollar, *Treatise on Injurious Insects, Translated*, 278.

a—f. England. Presented by F. Walker, Esq.

8. PSYLLA CARPINI.

Psylla Carpini, Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 72, 9.

Prussia.

9. PSYLLA DUBIA.

Psylla dubia, Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 73, 10.

Prussia.

10. PSYLLA FRAXINICOLA.

Psylla fraxinicola, Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 73, 11.

Prussia.

11. PSYLLA HIPPOPHAES.

Psylla Hippophaës, Von Heyden, *MSS. Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3.

a, b. Prussia. Presented by F. Walker, Esq.

12. PSYLLA ——— ?

Psylla viridula, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 74, 13.

a. England. Presented by F. Walker, Esq.

13. PSYLLA PEREGRINA.

Psylla peregrina, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 74, 14.

a, b. Prussia. Presented by F. Walker, Esq.

14. PSYLLA INSIGNIS.

Psylla insignis, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 74, 15.

Prussia.

15. PSYLLA AMBIGUA.

Psylla ambigua, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 74, 16.

Prussia.

16. PSYLLA MELANONEURA.

Psylla melanoneura, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 75, 17.

Prussia.

17. PSYLLA SPARTIOPHILA.

Psylla spartiophila, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 75, 18.

a, b. Prussia. Presented by F. Walker, Esq.

18. PSYLLA CRATÆGI.

Chermes Cratægi, *Scopoli, Ent. Carn.* 139, 412. *Gmel. Ed. Syst. Nat.* i. 4, 2214, 24. *Schrank, Faun. Boic.* ii. 1, 142, 1255. *Stew. El. Nat. Hist.* ii. 112.

Psylla Cratægi, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 75, 19.

a—d. England. Presented by F. Walker, Esq.

19. PSYLLA COSTATO-PUNCTATA.

Psylla costato-punctata, Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 76, 20.

a. Prussia. Presented by F. Walker, Esq.

20. PSYLLA RUFULA.

Psylla rufula, Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 76, 21.

Prussia.

21. PSYLLA FUMIPENNIS.

Psylla fumipennis, Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 76, 22.

Prussia.

22. PSYLLA PRUNI.

Chermes Pruni, Scopoli, *Ent. Carn.* 140, 414. *Gmel. Ed. Syst. Nat.* i. 4, 2214, 23. *Schrank, Faun. Boic.* ii. 1. 142, 1254. *Stew. El. Nat. Hist.* ii. 112.

Psylla Pruni, Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 77, 23.

Europe.

23. PSYLLA PYRI.

Psylla Pyri, Stephens, *Curt. Brit. Ent.* 565, 5. *Burm. Handb. Ent.* ii. 1, 98, 2. *Knight, Hort. Trans. Ser. 2*, ii. 107. *Loudon's Gardener's Mag.* 92, 1837, 525. *Ruricola, Gard. Chron.* ii. (1842), 156. Foerster, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3.

Chermes Pyri, Linn. *Syst. Nat.* i. 2, 737, 4. *Faun. Suec.* 1004. *Fabr. Sp. Ins.* ii. 390, 3. *Mant. Ins.* ii. 317, 3. *Ent. Syst.* iv. 221, 3. *Syst. Rhyn.* 303, 3. *Deg. Ins.* iii. 91, 2. pl. 9, f. 1, 16. *Schrank, Faun. Boic.* ii. 1, 142, 1253. *Gmel. Ed. Syst. Nat.* i. 4, 2211, 4. *Berk. Syn.* i. 121. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 710. *Shaw, Gen. Zool.* vi. 187, pl. 59, f. sup. *Schmidberger, Kollar, Treatise on Injurious Insects, Trans.* 275.

Apiopsylla, Amyot, *Ann. Soc. Ent. Fr. 2me Série*, v. 459.

a—d. England. Presented by F. Walker, Esq.

e—i. Scotland. Presented by E. Doubleday, Esq.

24. PSYLLA PYRICOLA.

Psylla pyricola, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 77, 25.

Germany.

25. PSYLLA APIOPHILA.

Psylla apiophila, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 78, 26.

a. England. Presented by J. C. Dale, Esq.

b, c. Prussia. Presented by F. Walker, Esq.

26. PSYLLA PYRISUGA.

Psylla pyrisuga, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 78, 27.

a. Prussia. Presented by F. Walker, Esq.

27. PSYLLA SALICIS.

Chermes Salicis, *Linn Syst. Nat.* ii. 739, 14. *Faun. Suec.* 1012. *Fabr. Sp. Ins.* ii. 392, 14. *Mant. Ins.* ii. 318, 14. *Ent. Syst.* iv. 223, 14. *Syst. Rhyn.* 305, 14. *Gmel. Ed. Syst. Nat.* i. 4, 2213, 14. *Schrank, Faun. Boic.* ii. 1, 140, 1247. *Stew. El. Nat. Hist.* ii. 112. *Turt. Syst. Nat.* ii. 711.

Psylla Saliceti, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 79, 28.

a, b. England. Presented by F. Walker, Esq.

c. Prussia. Presented by the Entomological Club.

d. ——— ?

28. PSYLLA FERRUGINEA.

Psylla ferruginea, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 79, 29.

a. England. Presented by F. Walker, Esq.

b. Prussia. Presented by E. Doubleday, Esq.

c. Prussia. Presented by F. Walker, Esq.

29. PSYLLA SIMULANS.

Psylla simulans, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 80, 30.

Prussia.

30. PSYLLA FRAXINI.

Psylla Fraxini, *Curt. Brit. Ent.* 565. *Hartig, Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 80, 31.

Chermes Fraxini, *Linn. Syst. Nat.* ii. 739, 15. *Faun. Suec.* 1013. *Fabr. Sp. Ins.* ii. 392, 15. *Mant. Ins.* ii. 318, 15. *Ent. Syst.* iv. 223, 15. *Syst. Rhyn.* 305, 15. *Gmel. Ed. Syst. Nat.* i. 4, 2313, 15. *Schrank, Faun. Boic.* ii. 1, 141, 1248. *Berk. Syn.* i. 122. *Stew. El. Nat. Hist.* ii. 112. *Turt. Syst. Nat.* ii. 711. *Kirby and Spence, Intr. Ent.* pl. 28, f. 18.

a—d. England. Presented by F. Walker, Esq.

e. Scotland. Presented by E. Doubleday, Esq.

f, g. Prussia. Presented by E. Doubleday, Esq.

h, i. Prussia. Presented by F. Walker, Esq.

31. PSYLLA HEYDENI.

Psylla Heydeni, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 81, 32.

a. Prussia. Presented by F. Walker, Esq.

32. PSYLLA ALPINA.

Psylla alpina, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 81, 33.

Bernese Alps.

33. PSYLLA PICTA.

Psylla picta, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 81, 34.

England.

34. PSYLLA SUBGRANULATA.

Psylla subgranulata, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 94.

South of France.

35. PSYLLA ARGYROSTIGMA.

Psylla argyrostigma, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 97, 4.

Germany.

36. PSYLLA ALATERNI.

Psylla Alaterni, *Haliday, MSS. Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 97, 5.

a. Ireland. Presented by A. H. Haliday, Esq.

37. PSYLLA ÆRUGINOSA.

Psylla æruginosa, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 97, 6.

Ireland.

38. PSYLLA OCCULTA.

Psylla occulta, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848,
3, 98, 7.

a. England. Presented by F. Walker, Esq.

39. PSYLLA FUSCIPES.

Psylla fuscipes, *Hartig, Germ. Ent. Zeit.* iii. 374.

Germany.

40. PSYLLA BETULÆ.

Chermes Betulæ, *Linn. Syst. Nat.* ii. 738, 9. *Faun. Suec.* 1007.
Fabr. Sp. Ins. ii. 391, 11. *Mant. Ins.* 318, 11. *Ent. Syst.* iv.
222, 11. *Syst. Rhyn.* 305, 11. *Gmel. Ed. Syst. Nat.* i. 4,
2212. *Stew. El. Nat. Hist.* ii. 112. *Turt. Syst. Nat.* ii. 711.

a—e. Scotland. Presented by E. Doubleday, Esq.

41. PSYLLA GRAMINIS.

Chermes Airæ-flexuosæ, *Linn. Syst. Nat.* ii. 737, 1. *Faun. Suec.* 1001.

Chermes graminis, *Fabr. Sp. Ins.* ii. 390, 1. *Mant. Ins.* ii. 317, 1. *Ent. Syst.* iv. 221, 1. *Syst. Rhyn.* 303, 1. *Gmel. Ed. Syst. Nat.* i. 4, 2211, 2. *Berk. Syn.* i. 121. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 710.

a. ———?

42. PSYLLA NIGRITA.

Chermes nigrita, *Zett. Faun. Lapp.* i. 556, 9. *Ins. Lapp.* 309, 9. Lapland.

43. PSYLLA PULCHRA.

Chermes pulchra, *Zett. Ins. Lapp.* 309, 10. Lapland.

44. PSYLLA ELEGANTULA.

Chermes elegantula, *Zett. Ins. Lapp.* 310, 11. Lapland.

Note.—The following species may not belong to the genus *Psylla* as it is defined by Foerster.

45. PSYLLA SUBFASCIATA.

Psylla subfasciata, *Erichson, Arch.* 1842, i. 286. Van Diemen's Land.

46. PSYLLA LUTEOLA.

Psylla luteola, *Erichson, Arch.* 1842, i. 286. Van Diemen's Land.

47. PSYLLA? CERASTII.

Chermes Cerastii, *Linn. Syst. Nat.* ii. 737, 3. *Faun. Suec.* 1003. *Fabr. Sp. Ins.* ii. 390, 4. *Mant. Ins.* ii. 317, 4. *Ent. Syst.* iv. 221, 4. *Syst. Rhyn.* 303, 4. *Gmel. Ed. Syst. Nat.* i. 4, 2211, 3. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 710.

Europe.

48. PSYLLA? SORBI.

Chermes Sorbi, *Linn. Syst. Nat.* ii. 738, 5. *Fabr. Sp. Ins.* ii. 391, 7. *Mant. Ins.* ii. 318, 7. *Ent. Syst.* iv. 222, 7. *Syst. Rhyn.* 304, 7. *Gmel. Ed. Syst. Nat.* i. 4, 2211, 5. *Berk. Syn.* i. 121. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 710.

Europe.

49. PSYLLA? PERSICÆ.

Chermes Persicæ, *Fabr. Sp. Ins.* ii. 391, 8. *Mant. Ins.* ii. 318, 8. *Ent. Syst.* iv. 222, 8. *Syst. Rhyn.* 304, 8. *Geoff. Ins. Par.* i. 506, 4. *Réaum. Ins.* iv. pl. 1, f. 1, 2. *Gmel. Ed. Syst. Nat.* i. 4, 2212, 18. *Stew. El. Nat. Hist.* ii. 111.

Europe.

50. PSYLLA? CALTHÆ.

Chermes Calthæ, *Linn. Syst. Nat.* ii. 738, 6. *Faun. Suec.* 1005. *Fabr. Sp. Ins.* ii. 391, 9. *Mant. Ins.* ii. 318, 9. *Ent. Syst.* iv. 222, 9. *Syst. Rhyn.* 304, 9. *Gmel. Ed. Syst. Nat.* i. 4, 2212, 6. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 710.

Europe.

51. PSYLLA? FAGI.

Chermes Fagi, *Linn. Syst. Nat.* ii. 738, 12. *Faun. Suec.* 1010. *St. Scand.* 65. *Fabr. Sp. Ins.* ii. 391, 6. *Mant. Ins.* ii. 317, 6. *Ent. Syst.* iv. 222, 6. *Syst. Rhyn.* 304, 6. *Réaum. Ins.* iii. pl. 26, f. 1—6. *Gmel. Ed. Syst. Nat.* i. 4, 2213, 12. *Stew. El. Nat. Hist.* ii. 112. *Turt. Syst. Nat.* ii. 710.

Europe.

52. PSYLLA? CASTANEA.

Psylla castanea, *Geoff. Ins. Par.* i. 489, 8.
Chermes castanea, *Gmel. Ed. Syst. Nat.* i. 4, 2214, 21. *Stew. El. Hist. Nat.* ii. 112.

France.

53. PSYLLA? RUBRA.

Psylla rubra, *Geoff. Ins. Par.* i. 489, 9.

Chermes rubra, *Gmel. Ed. Syst. Nat.* i. 4, 2214, 22. *Stew. El. Nat. Hist.* ii. 112.

France.

54. PSYLLA? PURPURASCENS.

Psylla (Section 4) *purpurascens*, *Hartig, Germ. Ent. Zeit.* iii. 375, 10.

Germany.

55. PSYLLA? EUONYMI.

Chermes Euonymi, *Scopoli, Ent. Carn.* 139, 411. *Gmel. Ed. Syst. Nat.* i. 4, 2214, 25. *Stew. El. Nat. Hist.* ii. 112.

Carniolia.

56. PSYLLA? SENECTIONIS.

Chermes Senecionis, *Scopoli, Ent. Carn.* 140, 413. *Gmel. Ed. Syst. Nat.* i. 4, 2214, 26. *Stew. El. Nat. Hist.* ii. 112.

Carniolia.

57. PSYLLA? LICHENIS.

Psocus?

Chermes lichenis, *Geoff. Ins. Par.* i. 88, 7. *Gmel. Ed. Syst. Nat.* i. 4, 2214, 20. *Stew. El. Nat. Hist.* ii. 112.

France.

58. PSYLLA? TRIPUNCTATA.

Psylla tripunctata, *Fitch, The Senate*, No. 30, 64.

New York.

59. PSYLLA? QUADRILINEATA.

Psylla quadrilineata, *Fitch, The Senate*, No. 30, 64.

New York.

60. PSYLLA? CARPINI.

Psylla Carpini, *Fitch, The Senate*, No. 30, 64.
New York.

61. PSYLLA? ANNULATA.

Psylla annulata, *Fitch, The Senate*, No. 30, 64.
New York.

62. PSYLLA? URTICÆCOLENS.

Psylla urticæcolens, *Fitch, MSS.*?
a. New York. From Dr. Fitch's collection.

63. PSYLLA? QUADRISIGNATA.

a. New York. From Dr. Fitch's collection.

64. PSYLLA? QUERCUS.

Chermes Quercûs, *Linn. Syst. Nat.* ii. 738, 11. *Faun. Suec.* 1009.
Fabr. Syst. Rhyn. 305, 16. *Gmel. Ed. Syst. Nat.* i. 4, 2212,
11. *Berk. Syn.* i. 121. *Stew. El. Nat. Hist.* ii. 112.
Sweden.

65. PSYLLA? ABIETIS.

Psylla (Section 5) Abietis, *Hartig, Germ. Ent. Zeit.* iii. 375, 11.
Germany.

66. PSYLLA? RHAMNI.

Chermes Ramni, *Schrank, Faun. Boic.* ii. 1, 141, 1249.
Bavaria.

67. PSYLLA? HUMULI.

Chermes Humuli, *Schrank, Faun. Boic.* ii. 1, 141, 1251.
Bavaria.

68. PSYLLA? LATA.

Ferruginea, lata; antennæ flavæ, submoniliformes, thoracis dimidio breviores, apice fuscæ; pedes fulvi; tibiis flavis; alæ limpidæ, venis flavo fuscoque fuscatis.

Ferruginous, broad, thick: feelers yellow, submoniliform, rather stout, less than half the length of the chest, with brown tips, which have two bristles; joints successively decreasing in length: legs tawny; shanks yellow: wings colourless; fore-wings broad; fore border convex near the base; veins with alternate yellow and brown bands; upper fork at two-thirds of the length of the wing; lower fork in the middle of the length, its petiole extremely short. The breadth of the body and the structure of the feelers and of the fore-wings, distinguish this species from all the groups into which this family has been divided; it is most allied to *Rhinocola*. Length of the body $1\frac{1}{4}$ line; of the wings 3 lines.

a, b. Sierra Leone. Presented by the Rev. D. F. Morgan.

Genus 6. TRIOZA.

Chermes, p., *Linn.*, *Fabr.*, *Gmel.*, *Berk.*, *Stew.*, *Turt.*, *Zett.*

Psylla, p., *Geoff.*, *Hartig*, *Burm.*, *Web. & Mohr.*, *Loew*, *Macquart*, *Blanch.*

Psylla (Section 2), *Hartig*, *Germ. Ent. Zeit.* 111, 374.

Trioza, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 67.

1. TRIOZA URTICÆ.

Trioza Urticæ, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 82, 1.

Chermes Urticæ, *Linn. Syst. Nat.* ii. 738, 8. *Faun. Suec.* 1006. *Fabr. Sp. Ins.* ii. 391, 10. *Mant. Ins.* ii. 318, 10. *Ent. Syst.* iv. 222, 10. *Syst. Rhyn.* 304, 10. *Gmel. Ed. Syst. Nat.* i. 4, 2212, 8. *Deg. Ins.* iii. 134, 1, pl. 9, f. 7—19. *Berk. Syn.* i. 121. *Stew. El. Nat. Hist.* ii. 112. *Turt. Syst. Nat.* ii. 711. *Zett. Faun. Lapp.* i. 553, 4. *Ins. Lapp.* 308, 4.

Psylla Urticæ, *Burm. Handb. Ent.* ii. 1, 98, 3.

Cnidopsylla, *Amyot*, *Ann. Soc. Ent. Fr. 2me Série*, v. 373.

a—d. England. Presented by F. Walker, Esq.

e, f. Prussia. Presented by E. Doubleday, Esq.

g, h. Prussia. Presented by F. Walker, Esq.

2. TRIOZA APICALIS.

Trioza apicalis, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 82, 2.

Chermes Cerastii? *Linn.*

Psylla simplex? *Hartig*, *Germ. Ent. Zeit.* iii. 374, 6.

Psylla Cerastii, *Loew*?

a. Prussia. Presented by F. Walker, Esq.

3. TRIOZA EUPODA.

Trioza eupoda, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 82, 3.

Psylla eupoda, *Hartig*, *Germ. Ent. Zeit.* iii. 374, 8.

Germany.

4. TRIOZA PROTENSA.

Trioza protensa, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 82, 4.

Prussia.

5. TRIOZA REMOTA.

Trioza remota, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848,
3, 83, 5.

Prussia.

6. TRIOZA CRASSINERVIS.

Trioza crassinervis, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 83, 6.

a. Prussia. Presented by F. Walker, Esq.

7. TRIOZA CURVATINERVIS.

Trioza curvatinervis, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 83, 7.

Prussia.

8. *TRIOZA ALBIVENTRIS*.

Trioza albiventris, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 84, 8.

Prussia.

9. *TRIOZA PALLIPES*.

Trioza pallipes, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 84, 9.

Germany.

10. *TRIOZA FORCIPATA*.

Trioza forcipata, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 84, 10.

Prussia.

11. *TRIOZA MODESTA*.

Trioza modesta, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 84, 11.

Prussia.

12. *TRIOZA SANGUINOSA*.

Trioza sanguinosa, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 85, 12.

Prussia.

13. *TRIOZA HÆMATODES*.

Trioza hæmatodes, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 85, 13.

Germany.

14. *TRIOZA CINNABARINA*.

Trioza cinnabarina, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 85, 14.

Germany.

15. TRIOZA NIGRICORNIS.

Trioza nigricornis, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 86, 16.

a. Prussia. Presented by F. Walker, Esq.

16. TRIOZA PINICOLA.

Trioza pinicola, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 86, 15.

Psylla Pini? *Geoff. Ins. Par.* i. 488, 6.

Chermes Pini? *Linn. Syst. Nat.* 736, 25. *Faun. Suec. Ed.* i. 699.
Gmel. Ed. Syst. Nat. i. 4, 2213, 19. *Stew. El. Nat. Hist.* ii.
112.

Pityopsylla, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 461, 513.

a—f. England. Presented by F. Walker, Esq.

17. TRIOZA? LARICIS.

Psylla Laricis, *Macquart, Recueil Trav. Soc. Sci. Lille*, 1819.

Cnaphalodes Laricis, *Amyot et Serv. Hist. Nat. Hém.* 595.

Cnaphalodes, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 460, 512.

France.

18. TRIOZA FEMORALIS.

Trioza femoralis, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 86, 17.

Germany.

19. TRIOZA ACUTIPENNIS.

Chermes acutipennis, *Zett. Faun. Lapp.* i. 554, 5. *Ins. Lapp.*
308, 5.

Trioza acutipennis, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 87, 18.

a. Prussia. Presented by F. Walker, Esq.

20. *TRIOZA GALII*.

Trioza Galii, *Foerster, Psyll. Verh. Nat. Verh. Preuss. Rheinl.* 1848, 3, 87, 19.

a, b. Prussia. Presented by F. Walker, Esq.

21. *TRIOZA VELUTINA*.

Trioza velutina, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 87, 20.

a. England. Presented by F. Walker, Esq.

22. *TRIOZA ABIETICOLA*.

Trioza abieticola, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 88, 21.

a. England. Presented by F. Walker, Esq.

23. *TRIOZA MUNDA*.

Trioza munda, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 88, 22.

Europe.

24. *TRIOZA WALKERI*.

Trioza Walkeri, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 88, 23.

Europe.

25. *TRIOZA MAURA*.

Trioza maura, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 94.

South of France.

26. *TRIOZA FLAVIPENNIS*.

Trioza flavipennis, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 98, 8.

Germany.

27. *TRIOZA VITRIPENNIS*.

Trioza vitripennis, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 98, 9.

Prussia.

28. *TRIOZA MARGINATA*.

Psylla marginata, *Hartig*, *Germ. Ent. Zeit.* iii. 374, 7.

Germany.

29. *TRIOZA FUSCA*.

Chermes fusca, *Zett. Faun. Lapp.* i. 552, 2. *Ins. Lapp.* 307, 2.

Lapland.

30. *TRIOZA PICTA*.

Chermes picta, *Zett. Faun. Lapp.* i. 553, 3. *Ins. Lapp.* 308, 3.

Lapland.

31. *TRIOZA AFFINIS*.

Chermes affinis, *Zett. Faun. Lapp.* i. 554, 6. *Ins. Lapp.* 308, 6.

Lapland.

32. *TRIOZA VIRIDULA*.

Chermes viridula, *Zett. Faun. Lapp.* i. 555, 7. *Ins. Lapp.* 309, 7.

Lapland.

Genus 7. *APHALARA*.

Aphalara, *Foerster*, *Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 389.

Psylla, p., *Web. & Mohr*.

Chermes, p., *Zett.*

1. APHALARA FLAVIPENNIS.

Aphalara flavipennis, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 89, 1.

a, b. England. Presented by F. Walker, Esq.

c, d. Prussia. Presented by E. Doubleday, Esq.

2. APHALARA EXILIS.

Aphalara exilis, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 89, 2.

Psylla exilis, *Web. & Mohr.*

a. England. Presented by F. Walker, Esq.

3. APHALARA POLYGONI.

Aphalara Polygoni, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 90, 3,

a. England. Presented by F. Walker, Esq.

4. APHALARA NERVOSA.

Aphalara nervosa, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 90, 4.

Prussia.

5. APHALARA SUBFASCIATA.

Aphalara subfasciata, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 90, 5.

Prussia.

6. APHALARA INNOXIA.

Aphalara innoxia, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.*
1848, 3, 90, 6.

Prussia.

7. APHALARA SUBPUNCTATA.

Aphalara subpunctata, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 91, 7.

Prussia.

8. APHALARA ULICIS.

Aphalara Ulicis, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 96, 3.

Europe.

9. APHALARA ARTEMISIÆ.

Aphalara Artemisiæ, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 96, 1.

Germany.

10. APHALARA SONCHI.

Aphalara Sonchi, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 96, 2.

Europe.

11. APHALARA NEBULOSA.

Chermes nebulosa, *Zett. Faun. Lapp.* i. 551, 1. *Ins. Lapp.* 307, 1.
Lapland.

12. APHALARA ARCTICA.

Picea, fulvo varia ; *scutellum fulvo trivittatum* ; *abdomen nigrum* ;
pedes picei, genubus tarsisque ferrugineis ; *alæ subcinereæ*.

Pitchy, with tawny marks : scutcheon with three tawny stripes : abdomen black : feelers black, filiform, slightly hairy, as long as the chest, with two bristles on each tip ; first and second joints stout, pitchy : legs pitchy ; knees and feet ferruginous : wings slightly gray ; veins black, ferruginous at the base : upper fork at three-fourths of the length of the wing ; lower fork near the middle, its

upper branch much curved, and thrice the length of its lower fork. Length of the body 1 line; of the wings $2\frac{1}{2}$ lines.

a. St. Martin's Falls, Albany River, Hudson's Bay. Presented by G. Barnston, Esq.

Genus 8. RHINOCOLA

Rhinocola, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 67, 91.

Chermes, p., *Linn., Fabr.*

Psylla, p., *Curt.*

1. RHINOCOLA ACERIS.

Rhinocola Aceris, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 91.

Chermes Aceris, *Linn. Syst. Nat.* ii. 739, 16. *Faun. Suec.* 1014. *Fabr. Sp. Ins.* ii. 392, 16. *Mant. Ins.* ii. 318, 16. *Ent. Syst.* iv. 223, 16. *Syst. Rhyn.* 306, 17. *Gmel. Ed. Syst. Nat.* i. 4, 2213, 16. *Stew. El. Nat. Hist.* ii. 112. *Turt. Syst. Nat.* ii. 711.

a. Prussia. Presented by F. Walker, Esq.

b. Prussia. Presented by E. Doubleday, Esq.

2. RHINOCOLA ERICÆ.

Rhinocola Ericæ, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 91, 2.

Psylla Ericæ, *Curt. Brit. Ent.* 565, 25.

a—f. England. Presented by F. Walker, Esq.

g. Prussia. Presented by E. Doubleday, Esq.

h. Prussia. Presented by F. Walker, Esq.

i. Fontainebleau. Presented by F. Walker, Esq.

Genus 9. ANISOSTROPHA.

Chermes, p., *Linn., Fabr., Gmel., Stew.*

Psylla, p., *Geoff., Tign., St. Farg. et Serr., Léon Duf., Amyot et Serr.*

Anisostropha, *Foerster, Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 92.

1. ANISOTROPHA FICUS.

Anisotropha Ficus, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 92.

Chermes Ficus, *Linn. Syst. Nat.* ii. 739, 17. *Fabr. Sp. Ins.* ii. 392, 17. *Mant. Ins.* ii. 318, 17. *Ent. Syst.* iv. 223, 17. *Syst. Rhyn.* 306, 18. *Réaum. Ins.* iii. pl. 29, f. 17—24. *Gmel. Ed. Syst. Nat.* i. 4, 2213, 17. *Stew. El. Nat. Hist.* ii. 111. *St. Farg. et Serv. Enc. Méth.* x. 229, 3. *Duf. Rech. Hém.* 104, pl. 9, f. 110—113. *Amyot et Serv. Hist. Nat. Hém.* 593, 1.

Psylla ficus, *Geoff. Ins.* i. 484, 1, pl. 10, f. 2. *Enc. Méth. Hist. Nat. Ins.* pl. 115, f. 1—7. *Tign. Hist. Nat. Ins.* iv. 165, pl. 4, f. 3.

Psylla, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 458, 511.

a. South of France.

Genus 10. EUPHYLLURA.

Psylla, p., *Fonscolombe*.

Euphyllura, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 93.

1. EUPHYLLURA OLEÆ.

Euphyllura Oleæ, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 93, 1.

Psylla Oleæ, *Fonscolombe, Ann. Soc. Ent. Fr.* ix. 111, 7.

South of France.

2. EUPHYLLURA PHILLYREÆ.

Euphyllura Phillyreæ, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 93, 2.

South of France.

Genus 11. SPANIONEURA.

Spanioneura, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 94.

1. SPANIONEURA FONSCOLOMBII.

Spanioneura Fonscolombii, *Foerster, Psyll. Verh. Nat. Ver. Preuss. Rheinl.* 1848, 3, 94.

South of France.

Fam. II. APHIDINA.

Aphidina, *Burm. Handb. Ent.* ii. 1, 85.

Gradipedes. Group 1, Aphides; 2, Myzoxylides, *Amyot et Serv. Hist. Nat. Hém.* 597, 609.

Aphidii, *Latr.*

Aphidæ, *Curt., Westw.*

Aphidina et Hyponomeutes, *Hartig.*

Aphidinæ, *Rondani.*

Genus 1. APHIS.

Aphis, p., *Linn., Fabr., Gmel., De la Hire, Bonnet, Réaum., Deg., Frisch., Richardson, Bjerkander, Hausm., Scop., Geoff., Schrank, W. Curtis, Latr., Kyber, Ratz., Durau, Dutrochet, Kittel, Fonscol., Macq., Harris.*

Aphis et Lachnus, *Illig., Hartig, Kalt, Burm., Haliday, Bonafous, Amyot et Serv.*

Aphis et Cinara, *Curtis, Mosley.*

Eriosoma, p., *Mosley.*

Aphis (Doralis et Phalaris), *Leach, Risso, Hist. Nat. Eur. Mérid.* v.

Aphis et Pterochlorus, *Rondani.*

Group 1. *Walk. Ann. Nat. Hist. Ser. 2, 1, 249.*

1. APHIS PLATANOIDIS.

Aphis Platanoidis, *Schrank, Faun. Boic.* ii. 1, 112, 1106. *Kalt. Mon. Pfl.* i. 13. *Ratz. Forst. Ins.* iii. 216, 1, pl. 11, f. 4. *Hartig, Germ. Zeit.* iii. 369, 9. *Walk. Ann. Nat. Hist. Ser. 2, i. 250, 1. Entom.* 173, 55.

Aphis Pseudoplatani, *Sir Oswald Mosley, Gardener's Chronicle,* i. 684.

Platanaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série,* v. 475, 518.

Fore-legs not much shorter than the hind-legs; shanks straight: vein of the fore-wing curving slightly inwards at two-thirds of its length, and again outwards where the brand commences; angle whence the fourth vein springs slight, distinct, at about two-thirds of length of brand; inclination of the rib-vein from thence to fore

border very slight; inclination of brand at its commencement between the vein and the border of the wing rather more abrupt than that of the tip of the brand; space between the first and second branch-veins at the base one-third of that between them at the tips; third vein nearly parallel to the second vein, the distance between them at the tips being hardly more than that at the base; first fork of the third vein at a little before one-third of its length, and its second fork at one half of the length of its first fork; the second fork runs straight towards the tip of the wing, and does not follow the curve of the fourth vein; the tips of the two forks are rather more distant from each other than the tip of the second fork is from the tip of the third vein; the fourth vein is much curved in the early part of its course, but afterwards is nearly straight; the space between its tip and that of the rib-vein is rather longer than the space between its tip and the tip of the second fork.

Var. Feelers with only six joints. Body pale yellow, with white limbs: the tips of the joints of the feelers are brown; the fourth joint is much shorter than the third; the fifth is brown, and less than half the length of the fourth; the sixth is rather longer than the third.

a—f. Scotland. Presented by E. Doubleday, Esq.

g—o. England. (In Canada Balsam). From Mr. Walker's collection.

2. APHIS ACERINA.

Aphis Acerina, *Walk. Ann. Nat. Hist. Ser. 2, i. 254, 2.*

First and second branch-veins of the fore-wings diverging from each other, the distance between them at the tips is about thrice that at the base; first branch-vein about one-third more distant from the source of the wing at the tip than at the base; its tip much farther from the base of the wing than from the tip of the second vein, and about one-third farther from the tip of the second vein than the latter is from the tip of the third; second vein slightly curved, nearer to the third in the middle than at the base or at the tip, rather farther from the third at the tip than at the base; tip of the third vein more apart from the tip of the second vein than from the tip of the first fork, and more apart from the tip of the first fork than the latter is from the tip of the second fork; tip of the second fork much nearer to the tip of the fourth vein than to the tip of the first fork and than

the tip of the fourth vein is to the tip of the rib-vein ; length of the third vein before the first fork generally much longer, sometimes a little shorter than its length between the forks ; distance between the tip of the rib-vein and the tip of the fourth nearly twice that between the tip of the fourth and the tip of the third vein.

Var. Angle of the rib-vein beneath the brand less obtuse, and its outward side shorter in one wing than in the other.

a—d. England. (In Canada Balsam). From Mr. Walker's collection.

Group 2. *Walk. Ann. Nat. Hist. Ser. 2, i. 255.*

3. APHIS BETULÆ.

Aphis Betulæ, *Linn. Syst. Nat.* ii. 735, 21. *Faun. Suec.* 992. *Bonnet, Hist. Nat.* i. 3. *Réaumur, Ins.* iii. pl. 22, f. 2. *Deg. Ins.* iii. 45, 3, f. 27, 28. *Geoff. Ins. Par.* i. 496, 7. *Fabr. Sp. Ins.* ii. 386, 20. *Mant. Ins.* ii. 316, 25. *Ent. Syst.* iv. 215, 25. *Syst. Rhyn.* 297, 25. *Gmel. Ed. Syst. Nat.* i. 4, 2206, 21. *Enc. Méth. Hist. Nat. Ins.* pl. 116, f. 9. *Schrank, Faun. Boic.* ii. 1, 107, 1189. *Berk. Syn.* i. 120. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 705. *Kalt. Mon. Pflanz.* i. 144, 118. *Walk. Ann. Nat. Hist. Ser. 2, i. 255, 3.*

Aphis nigritarsis, *Heyden, Mus. Senkenburg*, ii. Heft. 3, 299. *Kalt. Mon. Pflanz.* i. 135, 103. *Ratz. Forst. Ins.* iii. 218, 20.

Aphis punctipennis? *Zetterstedt, Faun. Lapp.* i. 559, 4. *Ins. Lapp.* ii. 2, 311, 7.

Nigritarsifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 480.

The viviparous winged female. This, before the end of March, is nearly elliptical, plump, bristly, very dark green, or almost black above, but paler beneath: six rows of tubercles along the back: mouth reaching a little beyond the hind legs: feelers less than half the length of the body: legs rather short and stout. As it increases in size it becomes dark green, with the exception of the tubercles. Fore-legs not much shorter than the hind-legs: rib slightly inclined towards the fore-border at two-thirds of the length, and receding from it beneath the brand, where it forms a distinct very long obtuse angle; this begins very shortly after the middle of the fore border, is about one-third of the whole length of the wing, nearly linear, except at the tip, where it forms a long acute angle; first, second, and third branch-veins obsolete before their source, especially the third vein, whose first fork begins at a little before one-third of its

length, and its second very soon after two-thirds, but this structure is variable; space between the first and second branch-veins at the base, one-fourth of that between them at the tips; tip of the third vein a little farther from the tip of the second than it is from the tip of the first fork, and than the latter is from the tip of the second fork; third vein near the tip slightly inclined towards the fourth; the latter much curved near the base, slightly so from the middle to the tip; space from its base to the tip of the rib-vein nearly equal to that between the latter and its tip.

Var. Space between the angle of the rib-vein longer in one wing than in the other; fourth vein moderately curved from the middle to the tip.

Var. Fourth vein straight from the middle to the tip.

a, b. Scotland. Presented by E. Doubleday, Esq.

c—z. England (In Canada Balsam). From Mr. Walker's collection.

4. APHIS COMES.

Aphis comes, *Walk. Ann. Nat. Hist. 2nd Série*, i. 258, 4.
England.

Group 3. *Walk. Ann. Nat. Hist. Ser. 2*, i. 259.

5. APHIS OBLONGA.

Aphis oblonga, *Von Heyden, Ent. Beitr. Mus. Senkenb.* ii. *Heft.* 3.
Stet. Ent. Zeit. Jahr. v. 12. *Kalt. Mon. Pflan.* i. 144. *Ratz.*
Forst. Ins. iii. 219, 23. *Stet. Ent. Zeit.* 1844, 9, 81, 133, 410.
Walk. Ann. Nat. Hist. Ser. 2, i. 259, 5.

Mecynaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 480.

Distance between the first and second veins at the base less than one-fourth of that between them at the tips; third not farther from the second at the tip than at the base, more than twice farther from the second at the base than the second is from the first; first fork very little nearer at the tip to the second fork than to the tip of the third vein, very little farther from the third vein than the third is from the second; second fork a little farther from the third vein than from the first fork; fourth vein curved near the base, almost straight towards the tip, much farther from the second fork than from the tip of the rib-vein.

a. England. (In Canada Balsam). From Mr. Walker's collection.

Group 4. *Walk. Ann. Nat. Hist. 2me Série*, i. 328.

6. APHIS FAGI.

- Aphis fagi*, *Linn. Syst. Nat.* ii. 735, 23. *Faun. Suec.* 994. *Bonnet, Hist. Nat.* i. 2. *Réaumur, Ins.* iii. pl. 26, f. 1. *Geoff. Ins. Par.* i. 497, 12. *Fabr. Mant. Ins.* ii. 316, 24. *Ent. Syst.* iv. 214, 24. *Syst. Rhyn.* 297, 24. *Gmel. Ed. Syst. Nat.* i. 4, 2207, 23. *Berk. Syn.* i. 120. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 705. *Fonscol. Ann. Soc. Ent.* x. 194, 34. *Walk. Ann. Nat. Hist. Ser. 2*, i. 328, 6.
- Kermes fagi*, *Enc. Méth. Hist. Nat. Ins.* pl. 118, f. 1—6.
- Lachnus fagi*, *Burm. Handb. Ent.* ii. 92, 2. *Kalt. Mon. Pflanz.* i. 147, 1. *Ratz. Forst. Ins.* iii. 219, 25.
- Eriosoma fagi*, *Sir Oswald Mosley, Gard. Chron.* i. 828.
- Phegirus*, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 480, 530.

Rib-vein slightly approaching the fore border, then receding from it and forming a very obtuse angle beneath the brand, which is rather long; first branch-vein slightly oblique, full four times more remote from the second at the tip than it is at the base; second very oblique, a little curved outward; third hardly more oblique than the second, farther from the second at the base than the second is from the first, but as near again to it at the tip; first fork at the tip a little nearer to the second than it is to the third vein, which is still more remote from the second vein; space between the forks, between the second fork and the fourth vein, and between the fourth vein and the tip of the rib-vein, almost equal; fourth vein rather long, slightly curved along its whole length.

a—g. Scotland. Presented by E. Doubleday, Esq.

h—m. (In Canada Balsam). From Mr. Walker's collection.

Group 5. *Walk. Ann. Nat. Hist. Ser. 2*, i. 330.

7. APHIS ANTENNATA.

- Aphis antennata*, *Kalt. Mon. Pflanz.* 115, 88. *Ratz. Forst. Ins.* iii. 218, 13. *Walk. Ann. Nat. Hist. Ser. 2*, i. 330, 7.

Front of the winged insect slightly concave with a little projection on each side; of the wingless female slightly convex: first and second joints of the feelers stout, not angular: fore-legs but little stouter than the hind-legs; shanks very slightly curved: brand

very long, nearly linear, equal to half the length of the rib-vein, begins to widen gradually before the middle of the wing: rib-vein broad, approaching the fore border at the commencement of the brand, afterwards diverging very slightly: it forms no angle at the source of the fourth vein, and its length beyond the base of that vein is more than the space between its tip and that of the fourth vein, and the latter distance is nearly double the space between its tip and that of the fourth vein and the tip of the third vein; the space between the first vein and the second at the tips is almost thrice that at the base, and much more than half the space between the tip of the first vein and the base of the wing; the space of the third vein between the forks is much shorter than that between the first fork and the base, and as long as that between the second fork and the tip of the wing; the space between the tip of the second fork and the tip of the third vein is much less than that between the tip of the second fork and the tip of the first fork; the third vein is not obsolete till close to its source; fourth vein very slightly curved, nearer to the tip of the rib-vein than to the second fork.

a—*c*. England. (In Canada Balsam). From Mr. Walker's collection.

Group 6. *Walk. Ann. Nat. Hist. Ser. 2*, 331.

8. APHIS TILIÆ.

Aphis Tiliæ, *Linn. Syst. Nat.* ii. 734, 11. *Faun. Suec.* 984. *Réaumur. Ins.* iii. pl. 23, f. 8. *Geoff. Ins. Par.* i. 495, 6. *Deg. Ins.* iii. 77, 12, pl. 5, f. 1—6. *Leeuwenh. Lettr.* 1696, 293, 294. *Frisch. Ins.* xi. 1, 3, pl. 17. *Fabr. Sp. Ins.* ii. 388, 34. *Mant. Ins.* ii. 316, 39. *Ent. Syst.* iv. 218, 39. *Syst. Rhyn.* 299, 39. *Gmel. Ed. Syst. Nat.* i. 4, 2204, 11. *Schrank, Faun. Boic.* ii. 1, 117, 1223. *Berk. Syn.* i. 119. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 707. *Shaw, Gen. Zool.* vi. 171, 8, 1223. *Latr. Gen.* iii. 173. *St. Farg. et Serr. Enc. Méth.* x. 247. *Burm. Handb. Ent.* ii. 95, 5. *Fonscol. Ann. Soc. Ent. Fr.* x. 182, 25. *Curt. Brit. Ent.* 577. *Sir Oswald Mosley, Gard. Chron.* i. 684. *Kalt. Mon. Pflanz.* i. 129, 99. *Ratz. Forst. Ins.* iii. 219, 22. *Walk. Ann. Nat. Hist. Ser. 2*, i. 331, 8.

Philyriptus, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 479, 528.

Rib-vein very strong; the space between it and the fore border is coloured along the whole length, but is partly colourless towards the tip; it runs parallel to the border of the wing for more than two-thirds of its length, then it slightly approaches the border and after-

wards recedes, and forms a very obtuse angle; the distance between this angle and the tip of the brand, is less than that between the tip of the brand and the tip of the fourth vein; space between the first and second branch veins at the base almost half of that between them at the tips; first vein nearly straight, diverging rather more from the second, than the second does from the third; its tip is much nearer to the tip of the second vein than to the base of the wing; second vein curved slightly, first outward, then inward in its course, wherein it slightly diverges from the third vein, to whose base it is a little nearer than to the base of the first vein; its tip is much nearer to the tip of the third than to the tip of the first vein; the third vein is curved slightly and irregularly inward, so as in some degree to conform to the fourth vein; its base is much nearer to the base of the second vein than to that of the fourth vein; its first fork begins at half the length, and its second beyond half the length of the first; the tip of its second fork is hardly farther from the tip of the fourth vein than from the tip of its first fork, and the space between its forks is much less than the space between its tip and that of its first fork, and the latter space is rather less than the space between its tip and that of the second vein; fourth vein much curved throughout its length; its tip a little nearer to the tip of the brand than to the tip of the second fork, and the distance from its base to the tip of the brand is only half that to the base of the third vein; the rib-vein of the lower wing is slender, and continues to its tip; it has two straight veins diverging slightly from each other, and consequently rather more distant at the tips than at the base; the space between them at the base is less than that between the first and the base of the wing, and still less than that between the second and the tip of the wing.

Var. Third vein in one wing without a second fork.

Var. A fork proceeding from the angle, which is formed by the second fork of the third vein.

Var. The part of the third vein between the forks longer than either the preceding or the succeeding part.

Var. The second fork with double its usual length.

Var. A third fork proceeding from near the base of the first fork of the third vein.

The winged male. The fourth feeler-joint is more than half the length of the third; the fifth is shorter than the fourth; the sixth than the fifth, and the seventh than the sixth.

a—g. Scotland. Presented by E. Doubleday, Esq.

h—k. England. (In Canada Balsam). Presented by F. Walker, Esq.

Group 7. *Walk. Ann. Nat. Hist. Ser. 2, i. 333.*

9. APHIS BETULICOLA.

Aphis Betulicola, *Kalt. Mon. Pflanz. i. 44. Ratz. Forst. Ins. iii. 216, 2. Walk. Ann. Nat. Hist. Ser. 2, i. 333, 9.*

The rib-vein slightly approaches the fore border before it recedes from it and incloses the brand; its angle is at three-fourths of the length of the brand, and though very obtuse is more decided than in many other species; the fourth vein is much curved throughout its length; its tip only is usually apparent, and is a little nearer to the tip of the rib-vein than to the tip of the third vein; the third vein springs from the rib-vein, a very little before the latter recedes from the fore border, the space between the first and the second forks shorter than the third fork, and much shorter than the third vein before the first fork; it forms two distinct angles when it emits the forks; its distance along the rib-vein from the fourth vein, is very nearly twice that from the second; the tip of the second fork is a very little nearer to the tip of the fourth vein than to the tip of the first fork; the tip of the first fork is nearer to the tip of the second than to the tip of the third vein, and the latter is a little nearer to the tip of the first fork, than to the tip of the second vein; the second vein is nearly straight, and diverges slightly from the third, and its distance from the latter at the tip is farther by half than at the base; its distance at the base from the third vein is a little less than that from the first vein at the base, but much less at the tip; the first vein diverges considerably from the second, and is almost perpendicular to the rib-vein; its distance on the rib-vein from the second vein is much less than half its distance from the base of the wing, but at the tip it is much more than the above proportion; the distance between these veins at the base is much less than half that at their tips: the legs are long and slender, the hind-legs rather longer than the rest, their shanks slightly curved: there is an appendage on each side of the first joint of the feelers.

Var. The second part of the third vein is longer than the first or the second.

Var. No second fork in one wing; in the other wing no first vein; its second vein is forked, but both the branches cease before they attain the hind border; the third vein has no fork, and also comes short of the usual length.

Var. No first fork in one wing.

a—h. England. (In Canada Balsam). From Mr. Walker's collection.

10. APHIS JUGLANDINA.

Aphis Juglandina, *Walk. Ann. Nat. Hist. Ser. 2*, i. 335, 10.

Rib-vein approaching the fore border, then receding from it, and forming an obtuse angle, whose outward side is not more than half the length of the inward one; first branch-vein very slightly oblique, hardly curved outward, twice farther more remote from the second at the tip than it is at the base; second oblique, slightly undulating; third very slightly undulating, more oblique than the second, nearer to the second at the base than the second is to the first, and the space between the latter at the tips is almost twice that between the second and third; first fork at the tip as near to the second fork as to the third vein, and nearer than the third vein is to the second vein; space between the forks a little less than that between the second fork and the fourth vein, but more than that between the fourth vein and the rib-vein; fourth vein rather short, much curved along its whole length.

England.

11. APHIS CORYLI.

Aphis Coryli, *Götze, Ent. Beiträge*, ii. 311. *Gmel. Ed. Syst. Nat.* i. 4, 2210, 69. *Kalt. Mon. Pflanz.* i. 98, 73. *Walk. Ann. Nat. Hist. Ser. 2*, i. 336, 11.

Corylaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 479.

First branch-vein nearly perpendicular; second slightly undulating, much more oblique; the distance between them at the base about one-third of that between them at the tips; third vein more oblique than the second, their mutual distance at the tips about twice that at the base, and nearly equal to the distance between the tips of the third and of its first fork; second fork forming a less acute angle than the first, as long as one-third of the third vein; fourth vein much curved along its whole length.

a—n. England. (In Canada Balsam). From Mr. Walker's collection.

12. APHIS ANNULATA.

Aphis annulatus? *Hartig, Germ. Zeit.* iii. 369, 10.

Aphis Quercûs, *Kalt. Mon. Pflân.* i. 98, 74. *Ratz. Forst. Ins.* iii. 217, 10. *Walk. Ann. Nat. Hist. Ser. 2, i.* 337, 12.

The rib-vein is parallel to the fore border till it slightly inclines thereto at a little before the beginning of the brand, where the space between them widens ; the angle of the brand is distinct, and the space between it and the tip of the rib-vein is near half the length of the brand ; the fourth vein is curved towards the base, but its latter part is nearly straight ; the space between its tip and that of the rib-vein is a little more than that between the latter and its angle ; the third vein before the first fork is generally a little longer than the space between the forks, but sometimes as long or even shorter ; the distance between the tips of the second fork and of the fourth vein is more than that between the tips of the two forks, and very much more than that between the tips of the fourth and of the rib-vein ; the space between the tips of the third vein and of the fork is much more than that between the tips of the fork, and a little more than that between the tips of the second and third veins ; the third vein springs from the rib-vein a little before the latter diverges from the fore border ; the second vein diverges from the third vein, and their mutual distance at the base is about half that at their tips, and much less than the distance between the second and first veins.

a—d. Scotland. Presented by E. Doubleday, Esq.

e—j. England. (In Canada Balsam). From Mr. Walker's collection.

13. APHIS QUERCEA.

Aphis Quercea, *Kalt. Mon. Pflân.* i. 136, 104. *Ratz. Forst. Ins.* iii. 218, 21. *Walk. Ann. Nat. Hist. Ser. 2, i.* 340, 13.

The rib-vein approaches the fore border very slightly before it diverges thence and encloses the brand ; the latter is rather broad in proportion to its length, and the distance from the angle whence the fourth vein springs to the tip of the rib-vein is about one-third of the length of the brand ; the fourth vein is much curved, more so than that of *A. annulata* ; it is nearly straight towards the tip, the distance between which and that of the rib-vein is rather less

than that of the whole length of the brand, and also rather less than the space between its tip and that of the second fork of the third vein; the third vein is invisible at its source, but its direction is towards the rib-vein at the point where the latter begins to widen; its length before the first fork is longer than its second fork, and still more so than the space between the forks; its distance from the second vein at the base is less than half of their mutual distance at their tips, and hardly half the distance between the base of the second and that of the first vein; the distance between the tip of the forks of the third vein is about equal to the space between the tip of the second fork and that of the fourth vein, and less than that between its tip and that of the first fork; the distance between the second and the third veins at their tips is very much less than that between the tips of the second and first veins; the distance between the first and the second veins at the base less than half the distance between them at their tips.

a—g. England. (In Canada Balsam). From Mr. Walker's collection.

14. APHIS ALNI.

Aphis Alni, *Fabr. Sp. Ins.* ii. 386, 21. *Mant. Ins.* ii. 316, 26. *Ent. Syst.* iv. 215, 26. *Syst. Rhyn.* 298, 26. *Gmel. Ed. Syst. Nat.* i. 2206, 54. *Deg. Ins.* iii. 47, 4, pl. 3, f. 15—17. *Berk. Syn.* i. 121. *Stew. El. Nat. Hist.* ii. 110. *Latr. Gen.* iii. 173. *Kirby & Spence, Intr. Ent.* iii. 76. *St. Farg. et Serv. Enc. Méth. Hist. Nat.* x. 248. *Kalt. Mon. Pflanz.* i. 137, 105. *Ratz. Forst. Ins.* iii. 219, 24. *Walk. Ann. Nat. Hist. Ser.* 2, i. 341, 14.

Kermes Alni? *Enc. Méth. Hist. Nat. Ins.* pl. 119, f. 2—4.

Aphis maculata, *Von Heyden, Mus. Senk.* ii. 297.

Clethrapiis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 480.

The rib-vein is parallel to the fore border till it approaches the latter, and again diverges from it; it encloses no brand, and does not form an angle, but is slightly curved outward till it joins the fore border; the widened part is rather short; there are no traces of the fourth vein except at its tip, which is nearer to the tip of the third vein than to that of the rib-vein: the third vein springs from the rib-vein a little after the beginning of the widened part; its length before the first fork is as long as the space between the forks, and a little longer than the second fork; the distance between the tips of the forks is much more than that between the tip of the

second fork and that of the fourth vein, but much less than the space between the tip of the third vein and that of its first fork; the second vein diverges slightly from the third vein, and is a little nearer to it at the base than at the tip, and its base is also a little nearer to the third vein than it is to the first; the distance between the tips of the second and third veins is a little less than the space between the tip of the third and that of its first fork, and a little more than half the space between the first and second veins; the space between the first and second veins at the base is a little more than half of that between them at the tips.

a—*r*. England. (In Canada Balsam). From Mr. Walker's collection.

15. APHIS JUGLANDICOLA.

Lachnus Juglandicola, *Kalt. Mon. Pfl.* i. 151, 4.

Aphis Juglandicola, *Walk. Ann. Nat. Hist. Ser. 2*, i. 343, 15.

The rib-vein is very slender, and nearly parallel to the fore border of the wing, to which its approach and divergence afterwards is very slight; there is no brand, but the vein forms a distinct though slight angle, and the space which it here encloses is rather short and broad; there is generally no fourth vein; the length of the third vein before the first fork is shorter than the space between the forks, but longer than the second fork; it is rather thick and quite distinct at its base; the distance between the tips of the forks is about half that between the tip of the third vein and that of its second fork; the second vein is straight, it diverges from the third, and the distance between them at their tips is nearly twice that at the base; the distance between the tip of the second vein and that of the third vein is about equal to that between the latter and the tip of its first fork; along the rib-vein the first vein is farther by half from the second than the second is from the third, and its distance from the second at the tip is farther than that at the base by much more than half.

In the female there are generally no traces of the fourth vein of the wing, but in some instances it is quite distinct; it springs from the angle of the rib-vein, and is slightly curved throughout its length; its tip is nearly as far from that of the rib-vein as it is from the tip of the third vein. The dark colour of the oviparous female seems to be owing to the eggs within it, these are three or four in number. In the male there is a coloured space between the rib-vein and the fore border; the brand is darker towards the base, and the fourth vein is distinct: it is more active than the males of the other

species, the chest is much developed, and the abdomen is small. In two instances the female has a distinct brand like that of the male.

Var. *Male*.—The third vein is joined by a cross-vein to the second a little before half the distance from the base of the first fork.

Var. *Male*.—The second branch-vein is obsolete for the latter half of its length, and the lower branch of the first fork of the third vein is also forked soon after its source; these forks diverge much from each other, and pass to the lower border of the wing.

Var. *Fem*.—The second vein is forked near its base, one fork joins the rib-vein, and the other fork joins the base of the third vein.

Var. *Male*.—A little cross-vein communicates between the second and the third veins near their base.

Var. *Male and Fem*.—Third vein before the first fork longer than the space between the forks, and much longer than the second fork.

a—u. England. (In Canada Balsam). From Mr. Walker's collection.

16. APHIS PLATANI.

Lachnus Platani, *Kalt. Mon. Pflanz.* i. 152, 5.

Aphis Platani, *Walk. Ann. Nat. Hist. Ser. 2*, i. 344, 16.

Rib-vein approaching the fore border, near the brand beneath it diverges much, and forms an obtuse angle; brand broad, brown, with a colourless spot; distance between the first and second veins more than twice farther at the tips than at the base; second and third veins slightly undulating; third almost twice farther from the second at the tip than at the base, much nearer to the second at the base than the second is to the first: first fork a little nearer to the second fork than to the third vein, generally as near to the third vein as the third is to the second; no fourth vein.

This species, with *A. Juglandis* and the eight preceding species, forms a genus or group, which is chiefly characterised by the uprightness of the first vein.

a—f. Russia. Presented by F. Walker, Esq.

Group 8. *Walk. Ann. Nat. Hist. Ser. 2, i. 443.*

17. APHIS JUGLANDIS.

Aphis Juglandis, *Frisch. Ins.* xi. 12, 10, pl. 16, f. 1, 5. *Gmel. Ed. Syst. Nat.* i. 2210, 70. *Walk. Ann. Nat. Hist. Ser. 2, i. 443, 17.*

Lachnus Juglandis, *Kalt. Mon. Pflanz.* i. 150, 3.

Juglandifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 481.

The rib-vein is stout, and almost imperceptibly approaches the fore border till it diverges and encloses the brand, which is somewhat darker than the rest of the space between the rib-vein and the fore border; the angle is distinct, and the space thence to the tip is almost one-third of the length of the brand; the fourth vein is much curved throughout, and the distance of its tip from that of the rib-vein is rather less than that of the latter from the angle; the third vein has its source where the rib-vein diverges from the fore border; the space between its forks exceeds its length before the first fork, and is still longer than the second fork; its distance at the base from the fourth is full twice that of the latter from the tip of the rib-vein, and it is nearly equally distant between the fourth and the second veins; it is slightly curved near the base; the distance between the first and second veins at their tips exceeds by rather more than half that between them at the base; the distance between the first and second veins at the base is rather less than that between the second and third veins, but at their tips it is much more; the first vein diverges much from the second, and is perpendicular to the rib-vein.

a. England. Presented by J. C. Dale, Esq.

b—i. England. (In Canada Balsam). From Mr. Walker's collection.

Group 9. *Walk. Ann. Nat. Hist. Ser. 2, i. 444.*

18. APHIS BIFRONS.

Aphis bifrons, *Walk. Ann. Nat. Hist. Ser. 2, i. 444, 18.*
England.

Group 10. *Walk. Ann. Nat. Hist. Ser. 2, i. 445.*

19. APHIS POPULI.

- Aphis Populi*, *Linn. Syst. Nat.* ii. 736, 27. *Faun. Suec.* 997. *Swammerd. Hist. Nat. Coll. Acad.* v. 531. *Réaum. Ins.* iii. pl. 26, f. 7—11, pl. 27, f. 1—14. *Deg. Ins.* iii. 94, 15, pl. 7, f. 1—7. *Fabr. Sp. Ins.* ii. 386, 22. *Mant. Ins.* ii. 316, 27. *Ent. Syst.* iv. 216, 27. *Syst. Rhyn.* 298, 27. *Schrank, Faun. Boic.* ii. 1, 113, 1211. *Gmel. Ed. Syst. Nat.* i. 2207, 27. *Hausmann, Illig. Mag.* i. 443, 6. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 705. *Rossi, Faun. Etrusc.* 260, 1371. *Samouelle, Comp.* i. 4. *Enc. Méth. Hist.* 527. *Ins.* pl. 116, f. 1—5. *Nouv. Dict. Hist. Nat.* xxviii. 254. *Rusticus, Ent. Mag.* iii. 337. *Kalt. Mon. Pflanz.* i. 126, 98. *Ratz. Forst. Ins.* iii. 218, 16. *Walk. Ann. Nat. Hist. Ser. 2, i. 445, 19.*
- Aphis Populeti*, *Panz. Faun. Ins. Germ.* lxxviii. 18.
- Aphis Populi albæ?* *Fonscol. Ann. Soc. Ent. Fr.* 187, 29.

Rib-vein hardly approaching the fore border, and then very slightly diverging from it; its angle is very blunt and hardly perceptible; the space thence to the tip is full three-fourths of the whole length of the part which forms the angle, and rather more than half the length from its tip to the tip of the fourth vein; first vein very oblique to the rib-vein; the length from its source to the base of the wing is less than three-fourths of the length of the base from its tip; second vein more oblique than the first vein, from which its distance at the base is almost one-third of that at their tips; its distance at the base from the first vein is rather less than one-third or than one-fourth of that length from the base of the first to the base of the wing; the distance between the tips of the first and second veins is nearly half that between the tip of the first and the base of the wing; third vein vanishing at its source, almost parallel to the second till near the tip, their mutual distance on the hind border a little exceeding that between them on the rib-vein, and the latter distance is much more than that between the first and second veins, but on the hind border it is much less; space between the two forks of the third vein much longer than the basal part or than the second fork, which are about equal in length; space between the tip of third vein and that of its first fork more than that between the tips of the second and third veins, and still more than that between the tips of the first and second forks; space between the tips of the first and second forks a little less

than the space between the tip of the second fork and that of the fourth vein; fourth vein rather long, slightly curved for half its length, nearly straight from thence to the tip, which is much nearer to the tip of the second fork than to the tip of the rib-vein.

Var. *Fem.*—Fourth joint of the feelers little more than half the length of the third; fifth a little shorter than the fourth; sixth much shorter than the fifth; seventh much longer than the fifth. Sometimes the second fork of the third vein varies most in the wings of one insect.

Var. *Male.*—The fourth vein vanishing from the middle to the tip.

Var. *Male.*—The second fork of the third vein longer than the space between the forks, and still more so than the part before the first fork.

a—z. England. (In Canada Balsam). From Mr. Walker's collection.

20. APHIS HIRTICORNIS.

Aphis hirticornis, *Walk. Ann. Nat. Hist. Ser. 2, i. 447, 20.*

Rib-vein hardly approaching the fore border, and then very slightly diverging from it; the angle is very blunt, and hardly perceptible, and its outward side is much shorter than the space between the tip of the rib-vein and that of the fourth vein; first vein very oblique to the rib-vein; second vein more oblique than the first, from which its distance at the base is almost or hardly one-third of the distance at their tips; third vein vanishing at its source, almost parallel to the second till near the tip, their mutual distance on the hind border a little exceeding that between them along the rib-vein, the latter distance much more than that between the first and second veins, but on the hind border it is much less; distance between the two forks much longer than the third vein before the first fork or than the second fork; a nearly equal distance between the tips of the third vein and of the first fork, between the tips of the second and third veins, and between the tips of the first and second forks, which last distance much exceeds that between the second fork and the tip of the fourth vein; fourth vein rather long, slightly curved for half its length, nearly straight from thence to the tip, which is much nearer to the tip of the second fork than to the tip of the rib-vein.

Var. Length between the forks of the third vein in one wing only half of that in the other wing.

England.

Group 11. *Walk. Ann. Nat. Hist. Ser. 2, i. 448.*

21. APHIS ACERIS.

Aphis Aceris, *Linn. Syst. Nat. ii. 736, 31. Faun. Suec. 999. Réaum. Ins. iii. 281—350, pl. 22, f. 6—10. Fabr. Syst. Ent. 735, 9. Sp. Ins. ii. 385, 10. Mant. Ins. ii. 315, 11. Ent. Syst. iv. 212, 11. Syst. Rhyn. 295, 11. Geoff. Ins. Par. i. 495, 5. Scopoli, Ent. Carn. 137, 397. Rossi, Faun. Etrusc. 260, 1372. Schrank, Faun. Boic. ii. 1, 111, 1205. Gmel. Ed. Syst. Nat. i. 2208, 31. Enc. Méth. Ins. pl. 116, f. 6. Berk. Syn. i. 121. Stew. El. Nat. Hist. ii. 111? Turt. Syst. Nat. ii. 703. Fonscol. Ann. Soc. Ent. Fr. x. 173, 13. Kalt. Mon. Pfl. i. 125, 97. Ratz. Forst. Ins. iii. 218, 15. Walk. Ann. Nat. Hist. Ser. 2, i. 448, 21.*

Acerifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série, v. 479.*

Aphis Aceris? (New York), *Fitch, The Senate, No. 30, 66.*

Aphis villosus? *Hartig, Germ. Zeit. iii. 369, 8.*

Rib-vein hardly approaching the fore border, and then very slightly diverging from it; the angle is very blunt and hardly perceptible, and its outward side is rather less than three-fourths of the length of the inward side, and as long as the space between the tip of the rib-vein and that of the fourth vein; first vein very oblique to the rib-vein; second vein more oblique than the first vein, from which its distance at the base is almost or hardly one-third of the distance at their tips; third vein vanishing at its source, almost parallel to the second till near the tip, their mutual distance on the hind border a little exceeding that between them along the rib-vein, the latter distance much more than that between the first and second veins, but on the hind border it is much less; distance between the two forks much longer than the third vein before the first fork and than the second fork; distance between tip of third vein and that of its first fork rather less than that between the second and third veins; distance between first and second forks as long or longer than that between the second fork and the tip of the fourth vein; fourth vein rather long, slightly curved for half

its length, nearly straight from thence to the tip, which is much nearer to the tip of the second fork than to the tip of the rib-vein.

a—c. Scotland. Presented by E. Doubleday, Esq.

f—w w. England. (In Canada Balsam). From Mr. Walker's collection.

22. APHIS ACERICOLA.

Aphis Acericola, *Walk. Ann. Nat. Hist. Ser. 2, i. 451, 22.*

a. England. Presented by F. Walker, Esq.

b. Interlacken, Switzerland. Presented by F. Walker, Esq.

23. APHIS QUADRITUBERCULATA.

Aphis quadrituberculata, *Kalt. Mon. Pflanz. i. 134, 102. Ratz. Forst. Ins. iii. 218, 19.*

a—c. England. Presented by F. Walker, Esq.

Group 12. *Walk. Ann. Nat. Hist. Ser. 2, i. 451.*

24. APHIS POPULEA.

Aphis Populea, *Kalt. Mon. Pflanz. i. 116, 90. Walk. Ann. Nat. Hist. Ser. 2, i. 451, 23.*

Lachnus punctatus, *Burm. Handb. Ent. ii. 93, 5.*

a—h. England. (In Canada Balsam). From Mr. Walker's collection.

25. APHIS SALICIS.

Aphis Salicis, *Linn. Syst. Nat. ii. 736, 26. Faun. Suec. 995. Réaumur. Ins. iii. 281—350, pl. 22, f. 2. Deg. Ins. iii. 50, 11. Fabr. Sp. Ins. ii. 389, 41. Mant. Ins. ii. 317, 46. Ent. Syst. iv. 219, 47. Syst. Rhyn. 301, 47. Gmel. Ed. Syst. Nat. i. 2207, 2210, 26. Rossi, Faun. Etrusc. 264, 1398. Schrank, Faun. Boic. ii. 1, 102, 1176. Berk. Syn. i. 120. Stew. El. Nat. Hist. ii. 111. Turt. Syst. Nat. ii. 707. Shaw, Gen. Zool. vi. 170. W. Curtis, Linn. Trans. vi. 75, 94, pl. 5, f. 1, 2. St. Farg. et Serv. Enc. Méth. x. 247. Fonscol. Ann. Soc. Ent. Fr. x, 176, 16. Kalt. Mon. Pflanz. i. 131, 100. Ratz. Forst. Ins. iii. 218, 18. Walk. Ann. Nat. Hist. Ser. 2, i. 452, 24.*

Cinara Salicis, *Sir Oswald Mosley, Gard. Chron.* i. 827.

Salicifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, x. 16.

Aphis Salicis? *Hal. Ent. Mag.* ii. 102. *Rusticus*, *Ent. Mag.* i. 218.

Rib-vein very slightly approaching the fore border, and then slightly diverging from it, and forming an extremely obtuse angle; brand rather long; first branch-vein oblique, two-thirds nearer to the second at the base than it is at the tip; second and third very oblique, a little farther from each other at the tips than they are at the base; vein between the forks and second fork nearly equal, and a little longer than the third vein before the first fork; space between the forks more than that between the second fork and the third vein, and less than that between the first fork and the third vein, which is almost equal to the space between the second and third veins; fourth vein much curved near the base, straight from thence to the tip, twice as far from the tip of the rib-vein as from the tip of the second fork.

Europe.

Group 13. *Walk. Ann. Nat. Hist. Ser. 2*, i. 453.

26. APHIS SALICIVORA.

Aphis Salicivora, *Walk. Ann. Nat. Hist. Ser. 2*, i. 453, 25.

Cinara Capræ, *Sir Oswald Mosley, Gard. Chron.* i. 748.

The oviparous wingless female is lozenge-shaped, dark green, dull, smooth, and rather flat: the head is dull yellow: the hind part of the abdomen is pale yellow, and lengthened: the feelers are pale yellow, setaceous, black towards the tips, and about half the length of the body: the eyes are black and rather prominent: the legs are pale yellow: the knees, and the tips of the feet are black.

Var. The body is elliptical, flat, thin, shining, thinly clothed with white hairs, dull white, with a broad, irregular black stripe along each side: the feelers are white with brown tips, and less than half the length of the body: the legs are white; the tips of the feet are black.

a—z. England. (In Canada Balsam). From Mr. Walker's collection.

Group 14. *Walk. Ann. Nat. Hist. Ser. 2, ii. 43.*

27. APHIS GLYCERÆ.

Aphis Glyceriæ, *Kalt. Mon. Pflanz.* i. 113, 87. *Walk. Ann. Nat. Hist. Ser. 2, ii. 43, 26.*

Rib-vein hardly approaching the fore border, not receding again from it, forming an extremely slight angle; first branch-vein slightly oblique, more than twice farther from the second at the tip than it is at the base; second oblique; third very oblique, nearer to the second at the base and at the tip than the second is to the first; tip of the third vein much nearer to the first fork than to the second vein, and as far from the first fork as the space between the forks, or that between the second fork and the fourth vein; fourth vein rather long, slightly curved near the base, much nearer at the tip to the second fork than to the tip of the rib-vein.

a—q. England. (In Canada Balsam). From Mr. Walker's collection.

28. APHIS LITTORALIS.

Aphis littoralis, *Walk. Ann. Nat. Hist. Ser. 2, ii. 44, 27.*
England.

29. APHIS HIRTELLUS.

Atheroides hirtellus, *Haliday, Ann. Nat. Hist.* 1838, 189.
Aphis hirtellus, *Walk. Ann. Nat. Hist. Ser. 2, ii. 45, 28.*

a. England. Presented by F. Walker, Esq.

30. APHIS CYPERI.

Aphis Cyperi, *Walk. Ann. Nat. Hist. Ser. 2, ii. 45, 29.*
Ireland.

Group 15. *Walk. Ann. Nat. Hist. Ser. 2, ii. 46.*

31. APHIS ERIOPHORI.

Aphis Eriophori, *Walk. Ann. Nat. Hist. Ser. 2, ii. 46, 30.*

a—d. Ireland. (In Canada Balsam). From Mr. Walker's collection.

Group 16. *Walk. Ann. Nat. Hist. Ser. 2, ii. 46.*

32. APHIS BUFO.

Aphis bufo, *Haliday, MSS. Walk. Ann. Nat. Hist. Ser. 2, 46, 31.*
Great Britain.

Group 17. *Walk. Ann. Nat. Hist. Ser. 2, ii. 47.*

33. APHIS SERRULATUS.

Atheroides serrulatus, *Haliday, Ann. Nat. Hist. 1839, 189.*

Aphis serrulatus, *Walk. Ann. Nat. Hist. Ser. 2, ii. 47, 32.*

a—d. Ireland. (In Canada Balsam). Presented by F. Walker, Esq.

Group 18. *Walk. Ann. Nat. Hist. Ser. 2, ii. 95.*

34. APHIS PICEÆ.

Aphis Piceæ, *Panz. Faun. Ins. Germ. lxxviii. 22. Fabr. Syst. Rhyn. 302, 56. Zett. Faun. Lapp. i. 557, 1. Ins. Lapp. i. 310, 1. Ann. Nat. Hist. 1848, 95. Walk. Ann. Nat. Hist. Ser. 2, ii. 95, 33.*

Lachnus grossus, *Kalt. Ent. Zeitung, 1846, 175.*

Aphis ——— ? Schäffer, Icon. Ins. Ratisb. pl. 222, f. 4, 5.

Rib-vein very slightly approaching the fore border, hardly again receding from it, forming a slightly obtuse angle close to its tip; brand near half the length of the wing; first branch-vein slightly oblique, very slightly undulating, six times farther from the second at the tip than it is at the base; second very oblique, slightly undulating, much nearer to the first than to the third at the base, but much farther at the tip; third straight, as oblique as the second, much more distant from it at the tip than at the base; forks very long; first at the tip a little nearer to the third vein, than the third is to the second; and more than twice farther from the third than it is from the second fork; second fork much nearer to the fourth vein than to the first; fourth long, straight.

a—c. Grimsel, Switzerland. Presented by the Entomological Society.

35. APHIS PINI.

- Aphis Pini*, Linn. *Syst. Nat.* ii. 736, 25. *Faun. Suec.* 994. *Fabr. Mant. Ins.* ii. 317, 44. *Sp. Ins.* ii. 389, 39. *Ent. Syst.* iv. 219, 44. *Syst. Rhyn.* 300, 44. *Gmel. Ed. Syst. Nat.* i. 2207, 25. *Rossi, Faun. Etrusc.* 264, 1396. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 707. *Panz. Faun. Ins. Germ.* xcv. 17. *De la Rue, Ent. Forestière. Latr. Gen.* iii. 173. *Kirby and Spence, Intr. Ent.* i. 325. *St. Farg. et Serr. Enc. Méth.* x. 247. *Fonscol. Ann. Soc. Ent.* x. 186, 28. *Walk. Ann. Nat. Hist. Ser.* 2, ii. 96, 34.
- Aphis Pini maritimæ*? *Léon Dufour, Ann. Sci. Nat.* iv. 243.
- Aphis nuda Pini*, *Deg. Ins.* iii. 27, pl. 6, f. 9, 1—16.
- Lachnus Pini*, *Hartig, Germ. Zeit.* iii. 368. *Kalt. Mon. Pfl.* i. 155, 8.
- Pityaphis*, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 481.

Distance between the first and second veins at the base not more than one-eighth of that at the tips; third twice farther from the second at the tip than at the base, more than twice farther from the second at the base than the second is from the first; first fork at the tip much nearer to the second fork than to the third vein, very much nearer to the third vein than the third is to the second; second fork a little nearer to the fourth vein than it is to the first fork; fourth vein almost straight, about four times farther from the tip of the rib-vein than from the second fork.

a. Scotland. Presented by E. Doubleday, Esq.

b—f. England. (In Canada Balsam). From Mr. Walker's collection.

36. APHIS PINICOLA.

- Lachnus Pinicola*, *Kalt. Mon. Pfl.* i. 154, 7.
- Aphis Piniphila*, *Ratz. Forst. Ins.* iii. 219, 26, pl. 11, f. 5.
- Aphis Pinicola*, *Walk. Ann. Nat. Hist. Ser.* 2, ii. 98, 35.

Distance between the first and rib-veins at the base less than one-eighth of that between them at the tips; third much farther from the second at the tip than it is at the base, about thrice farther from the second at the base than the second is from the first; first fork at the tip very much nearer to the second fork than to the third vein, much nearer to the third vein than the third is to the second; second fork a little nearer to the fourth vein than to the first fork;

fourth vein very slightly curved, nearly four times farther from the rib-vein than from the second fork.

a—h. England. (In Canada Balsam). From Mr. Walker's collection.

37. APHIS PINETI.

Aphis Pineti, *Fabr. Sp. Ins.* ii. 389, 40. *Mant. Ins.* ii. 317, 45. *Ent. Syst.* iv. 219, 45. *Syst. Rhyn.* 301, 45. *Gmel. Ed. Syst. Nat.* 1, 2207, 55. *Turt. Syst. Nat.* ii. 707. *Latr. Gen.* iii. 173. *St. Farg. et Serv. Enc. Méth.* x. 248. *Zett. Faun. Lapp.* i. 558, 2. *Ins. Lapp* i. 310, 2. *Walk. Ann. Nat. Hist. Ser.* 2, ii. 99, 36.

Aphis tomentosa Pini, *Deg. Ins.* iii. 39, 2, pl. 6, f. 19—33.

Lachnus Pineti, *Hartig, Convers. Lexic. Germ. Zeit.* iii. 368. *Kalt. Mon. Pflanz.* i. 162, 12.

Pinetifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 481.

Distance between the first and second veins at the tips about ten times farther than at the base; third mostly obsolete, much farther from the second at the tips than it is at the base; very much farther from the second at the base than the second is from the first; fourth vein almost straight, twice farther from the tip of the rib-vein than from the nearest visible part of the third vein.

a—m. England. (In Canada Balsam). From Mr. Walker's collection.

38. APHIS ABIETIS.

Aphis Abietis, *Walk. Ann. Nat. Hist. Ser.* 2, ii. 100, 37.

The viviparous wingless female. Elliptical, slightly convex, somewhat powdered with white, with cross rows of little black dots on the sutures between the segments: feelers pale yellow, slightly hairy, hardly more than one-fifth of the length of the body; tips brown: mouth with a black tip: front convex: sides of the forechest slightly notched.

The viviparous winged female. Feelers about one-third of the length of the body: angle near the tip of the wing-brand more obtuse than that of *A. Pinicola*, but less so than that of *A. Pini*, or of *A. Pineti*; fourth vein nearly straight; third vein obsolete near its source, forked before one-third, and again before two-thirds of its length; angles formed by these forks very

acute; tip of the second fork very near the the tip of the fourth vein; first and second veins almost straight, near each other at the base, very far apart at the tips.

The winged male. Darker, much smaller, and more slender than the female, and has a broader head: feelers about half the length of the body.

England.

39. APHIS COSTATA.

Aphis costata, Zett. *Faun. Lapp.* i. 559, 3. *Ins. Lapp.* 311, 4. *Walk. Ann. Nat. Hist. Ser.* 2, ii. 100, 38.

Aphis Abietis? Kirby and Spence, *Intr. Ent.* i. 451, iii. 182, 465; iv. 171.

Lachnus fasciatus, Burm. *Handb. Ent.* ii. 93, 4. *Kalt. Mon. Pfl.* i. 160, 9.

Cinara Symphiti, Curt. *Brit. Ent.* 577.

Tæniolachnus, Amyot, *Ann. Soc. Ent. Fr.* 2me Série, v. 481.

Rib-vein approaching the fore border, and again receding much from it beneath the brand, forming a very obtuse angle; brand nearly as long as one-third of the wing; first branch vein straight, rather oblique, about five times farther from the second at the tip than it is at the base; second very oblique; third obsolete in the female, apparent but indistinct in the male, much nearer at its tip to the first fork than to the second vein; second fork long, not half so far at the tip from the fourth vein as from the second fork; fourth vein long, slightly curved, straight in the male.

a—f. England. (In Canada Balsam). From Mr. Walker's collection.

40. APHIS LARICIS.

Aphis Laricis, Walk. *Ann. Nat. Hist. Ser.* 2, ii. 102, 39.

Distance between the first and second veins at the base about eight times that between them at the tips; third almost twice farther from the second at the tip than it is at the base, twice farther from the second at the base than the second is from the first; first fork more than twice farther from the third vein than from the second fork, nearer to the third vein than the third is to the second; second fork nearer to the fourth vein than to the first fork; fourth

vein almost straight, more than thrice farther from the tip of the rib-vein than from the second fork.

a—f. England. (In Canada Balsam). From Mr. Walker's collection.

41. APHIS JUNIPERI.

Aphis Juniperi, *Fabr. Sp. Ins.* ii. 388, 35. *Mant. Ins.* ii. 316, 40. *Ent. Syst.* iv. 218, 40. *Syst. Rhyn.* 300, 40. *Gmel. Ed. Syst. Nat.* i. 2205, 48. *Deg. Ins.* iii. 56, 7, pl. 4, f. 7—9. *Schrank, Faun. Boic.* ii. 1, 119, 1230. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 707. *Walk. Ann. Nat. Hist. Ser.* 2, ii. 103, 40.

Lachnus Juniperi, *Kalt. Mon. Pflanz.* i. 153, 6.

Juniperifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 481.

Distance between the first and second veins at the tips about four times that between them at the base; third obsolete till near the tips; second fork a little nearer to the first fork than to the fourth vein; fourth vein almost straight, twice farther from the tip of the rib-vein than from the second fork.

a—o. England. (In Canada Balsam). From Mr. Walker's collection.

42. APHIS SUBMACULA.

Aphis submacula, *Walk. Ann. Nat. Hist. Ser.* 2, ii. 104, 41.

Distance between the first and second veins at the tips nearly eight times that between them at the base; third as near to the second at the tip as it is at the base, more than thrice farther from the second at the base than the second is from the first; first fork much nearer to the second fork than to the third vein, farther from the third vein than the third is from the second; second fork as near to the first fork as to the fourth vein; fourth vein much curved near the base, almost straight towards the tip, a little more than twice farther from the tip of the rib-vein than from the second fork.

England, Switzerland.

43. APHIS SALIGNA.

- Aphis saligna*, *Sulzer, Ins.* pl. 11, f. 6. *Gmel. Ed. Syst. Nat.* i. 2209, 62. *Walk. Ann. Nat. Hist. Ser.* 2, ii. 105, 42.
Aphis salicina? *Zett. Ins. Lapp.* i. 311, 6.
Aphis viminalis, *Fonscol. Ann. Soc. Ent. Fr.* x. 184, 27.

Rib-vein very slightly approaching the fore border, hardly again receding from it, not forming an angle; brand near one-third of the length of the wing; first branch-vein oblique, almost straight, six times farther from the second at the tip than it is at the base; second very oblique, not half as far at the base from the first as it is from the third, but very much farther at the tip; third almost straight, more oblique than the second, and twice farther from it at the tip than at the base; forks very long; first at the tip as far from the second fork as from the third vein, and nearer to them than the third vein is to the second; second fork not half so far from the fourth vein as it is from the first fork; fourth vein long, very slightly curved.

The viviparous wingless female. Brown, with a slight gray stripe along the back, and a double row of black spots on each side, increasing in breadth from the head till near the tip of the abdomen, with a slight bronze tint, covered beneath with gray powder: feelers black, nearly one-third of the length of the body; third joint yellow: mouth pale yellow, black at the base and towards the tip, extending somewhat beyond the hind hips: tubercles black: legs stout, long, black; thighs, except their tips, and shanks at the base yellow. When young it is duller and paler; the feelers, the fore-shanks and the middle-shanks are yellow with black tips.
 Europe.

44. APHIS ROBORIS.

- Aphis Roboris*, *Linn. Syst. Nat.* ii. 735, 22. *Faun. Suec.* 993. *Fabr. Sp. Ins.* ii. 388, 37. *Munt. Ins.* ii. 317, 42, 1. *Ent. Syst.* iv. 218, 42. *Syst. Rhyn.* 300, 42. *Schrank, Faun. Boic.* ii. 1, 112, 1209. *Gmel. Ed. Syst. Nat.* i. 2207, 22. *Turt. Syst. Nat.* ii. 707. *Fonscol. Ann. Soc. Ent. Fr.* x. 183, 26. *Walk. Ann. Nat. Hist. Ser.* 2, ii. 106, 43.
Aphis longipes, *Léon Dufour, Réch. Hémipt. Mém. de l'Institut* iv. 243, pl. 9, f. 116, 117.

Cinara Roboris, *Curt. Brit. Ent.* xii. 576. *Sir Oswald Mosley, Gard. Chron.* i. 747.

Lachnus Roboris, *Kalt. Mon. Pfl.* i. 148, 2.

Dryaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 481.

Rib-vein slightly approaching the fore border, and again receding from it beneath the brand, forming no angle, but slightly curved towards its tip; brand full as long as one-fourth of the wing; first branch-vein slightly undulating, very slightly oblique, six times farther from the second at the tip than it is at the base; second very oblique, slightly undulating, more than twice farther from the third than from the first at the base, but much nearer at the tip; third almost straight, very oblique, much farther from the second at the tip than it is at the base; first fork at the tip as far from the second fork as from the third vein, and much nearer to them than the third vein is to the second; second fork very long, slightly undulating, nearer at the tip to the fourth vein than to the first fork; fourth vein long, much curved near the base, straight from thence to the tip.

a—c. England. Presented by F. Walker, Esq.

d—i. England. (In Canada Balsam). From Mr. Walker's collection.

45. APHIS AGILIS.

Lachnus agilis, *Kalt. Mon. Pfl.* i. 161, 11.

Aphis agilis, *Walk. Ann. Nat. Hist. Ser.* 2, ii. 108, 44.

Distance between the first and second veins at the tips about thrice that between them at the base; third vein mostly obsolete; fourth vein almost straight, about thrice farther from the tip of the rib-vein than from the second fork.

a—e. England. (In Canada Balsam). From Mr. Walker's collection.

Group ——— ?

46. APHIS ——— ?

Aphis Tiliæ, *Enc. Méth. Hist. Nat. Ins.* pl. 117, f. 2, 4.

France.

47. APHIS ——— ?

Lachnus Roboris, *Hartig, Germ. Zeit. Ent.* iii. 368, 6.
Hartz.

48. APHIS PRUINOSUS.

Lachnus pruinus, *Hartig, Germ. Ent. Zeit.* iii. 368, 5.
Prussia.

49. APHIS ——— ?

Lachnus Padi, *Hartig, Germ. Zeit. Ent.* iii. 368, 4.
Germany.

50. APHIS CARYÆ.

Aphis Caryæ, *Harris, Cat. Ins. Mass. Ins. New Engl.* 190.
United States.

51. APHIS SALICTI.

Aphis Salicti, *Harris, Ins. New Engl.* 191.
United States.

Group 19.

52. APHIS QUERCUS.

Aphis Quercûs, *Linn. Syst. Nat.* ii. 735, 24. *Fabr. Sp. Ins.* ii. 388, 38. *Mant. Ins.* ii. 317, 43. *Ent. Syst.* iv. 219, 43. *Syst. Rhyn.* 300, 43. *Gmel. Ed. Syst. Nat.* i. 2207, 24. *Réaum. Ins.* iii. 334, pl. 28, f. 5—14. *Geoff. Ins. Par.* i. 498, 14. *Schrank, Faun. Boic.* ii. 112, 1238. *Rossi, Faun. Etrusc.* 263, 1395. *Enc. Méth. Hist. Nat. Ins.* pl. 118, f. 1—10. *Huber, Hist. Nat. Fourm.* 195. *Bonnet, Hist. Nat.* i. 3. *Berk. Syn.* i. 120. *Stew. El. Nat. Hist.* ii. 111.

Aphis longirostris, *Fabr. Mant. Ins.* ii. 314, 1. *Ent. Syst.* iv. 210, 1. *Syst. Rhyn.* 294, 1. *Gmel. Syst. Nat.* i. 2201, 34.

Lachnus Quercûs, *Burm. Handb. Ent.* ii. 92, 3. *Kalt. Mon. Pflanz.* i. 164, 13. *Ratz. Forst. Ins.* iii. 220, 27.

Phylloxera longirostris, *Fonscol. Ann. Soc. Ent. Fr.* x. 197, 2.

Lachnus, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 480.

The winged female. Wings a little longer than the body, slightly brown; veins brown, strongly marked; first short, curved; second forked at about half its length, not quite springing from the rib-vein; fourth curved, diverging from the third.

a—d. England. (In Canada Balsam). From Mr. Walker's collection.

Group 20. *Walk. Ann. Nat. Hist. Ser. 2, ii. 190.*

53. APHIS ROSÆ.

Aphis Rosæ, *Linn. Syst. Nat.* ii. 734, 9. *Faun. Suec.* 982. *Fabr. Sp. Ins.* ii. 387, 25. *Mant. Ins.* ii. 316, 30. *Ent. Syst.* iv. 217, 30. *Syst. Rhyn.* 298, 30. *Réaumur. Ins.* iii. pl. 21, f. 1—4. *Deg. Ins.* iii. 65, 10, pl. 3, f. 1—4. *Rossi, Faun. Etrusc.* 262, 1386. *Gotz. Ent. Beitr.* ii. 296, 9. *Sulz. Ins.* pl. 12, f. 79. *Lederm. Micr.* 53, pl. 25. *Gmel. Ed. Syst. Nat.* i. 4, 2204, 9. *Schrank, Faun. Boic.* iii. 117, 1222. *Harris, Exposit. Engl. Ins.* 66, pl. 17, f. 1—3. *Dr. Richardson, Phil. Trans.* lxi. 121. *Bonnet, Hist. Nat.* i. 48. *Berk. Syn.* i. 119. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 706. *Shaw, Gen. Zool.* vi. 171, pl. 58, f. med. *Bingley, Hist. Nat.* iii. 186. *Wood, Ill. Linn. Gen. Ins.* i. 112, pl. 39. *Latr. Gen.* iii. 173. *Enc. Brit. 7th Edit.* ix. 205. *Kirby and Spence, Intr. Ent.* ii. 436—454. *Enc. Méth.* i. pl. 17, f. 1. *St. Farg. et Serv. Enc. Méth.* x. 240, 4. *Lamarck, Anim. sans Vert. 2me Edit.* iv. 122. *Westw. Mag. Nat. Hist.* vi. 492. *Haliday, Ent. Mag.* ii. 78. *Léon Duf. Rech. Hém. Mém. Inst.* iv. 242. *Kyber, Germ. Zeit.* ii. 2, 3. *Burm. Handb. Ent.* ii. 94, 2. *Sir Oswald Mosley, Gard. Chron.* i. 628. *Fonscol. Ann. Soc. Ent. Fr.* x. 168, 8. *Kalt. Mon. Pflanz.* i. 3, 1. *Harris, Ins. New Engl.* 190. *Blanch. Hist. Nat. Ins.* 206, 11. *Guér. Icon. Règ. Anim.* i. pl. 59, f. 15. *Amyot et Serv. Hist. Nat. Hém.* 609, 1. *Walk. Ann. Nat. Hist. Ser. 2, ii. 192, 45.*

Aphis Dipsaci, *Schrank, Faun. Boic.* ii. 104, 1181.

Aphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 474, i. 516.

Distance between the first and second veins at the tips almost twice that between them at the base; third farther from the second at the tip than at the base, as far from the second at the base as the second is from the first; first fork at the tip a little nearer to the second fork than to the third vein, nearer to the third vein than the

third is to the second ; second fork nearer to the fourth vein than to the first fork ; fourth vein curved near the base, almost straight towards the tip, much farther from the tip of the rib-vein than from the second fork.

a—i. Scotland. Presented by E. Doubleday, Esq.

j—dd. England. (In Canada Balsam). From Mr. Walker's collection.

54. APHIS SONCHI.

Aphis Sonchi, *Linn. Syst. Nat.* ii. 735, 15. *Fabr. Sp. Ins.* ii. 390, 48. *Mant. Ins.* ii. 317, 53. *Ent. Syst.* iv. 220, 53. *Syst. Rhyn.* 302, 53. *Geoff. Ins. Par.* i. 497, 13. *Réaum. Ins.* iii. 333, pl. 22, f. 3—5. *Gmel. Ed. Syst. Nat.* i. 4, 2205, 15. *Schrank, Faun. Boic.* ii. 1, 120, 1232. *Rossi, Faun. Etrusc.* 265, 1402. *Nour. Dict. d' Hist. Nat.* xxviii. 254. *Kalt. Mon. Pfl.* i. 28, 17. *Berk. Syn.* i. 120. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 708. *Sir Oswald Mosley, Gard. Chron.* i. 628. *Walk. Ann. Nat. Hist. Ser.* 2, ii. 197, 46. *Zool.* vi. 2246, 2248.

Sonchifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 475, 519.

Aphis Serratulæ, *Linn. Faun. Suec.* 987. *Schrank, Faun. Boic.* ii. 1, 122, 1238. *Kalt. Mon. Pfl.* i. 26, 15.

Serratulifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 475.

Aphis Jaceæ, *Linn. Faun. Suec.* 991. *Gmel. Ed. Syst. Nat.* i. 4, 2206, 20. *Scopoli, Ent. Carn.* 148, 403. *Schrank, Faun. Boic.* ii. 1, 124, 1244. *Berk. Syn.* i. 120. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 708. *Kalt. Mon. Pfl.* i. 26, 15.

Jaceifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 475.

Aphis Picridis, *Fabr. Syst. Ent.* 737, 22. *Sp. Ins.* ii. 387, 27. *Mant. Ins.* ii. 316, 32. *Ent. Syst.* iv. 217, 32. *Syst. Rhyn.* 299, 32. *Gmel. Ed. Syst. Nat.* i. 4, 2204, 43. *Schrank, Faun. Boic.* ii. 121, 1235. *Kalt. Mon. Pfl.* i. 27, 16.

Picridifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 475.

Aphis Cirsii, *Linn. Faun. Suec.* 987. *It. W. Goth.* 307. *Gmel. Ed. Syst. Nat.* i. 4, 2205, 16. *Scop. Ent. Carn.* 138, 402. *Stew. El. Nat. Hist.* ii. 110.

Aphis Cnici, *Schrank, Faun. Boic.* ii. 122, 1239.

Aphis Solidaginis, *Fabr. Sp. Ins.* ii. 384, 4. *Mant. Ins.* ii. 315, 5. *Ent. Syst.* iv. 211, 5. *Syst. Rhyn.* 295, 5. *Gmel. Ed. Syst. Nat.* i. 4, 2202, 38. *Hausmann, Ill. Mag.* i. 442, 5. *Kalt. Mon. Pfl.* i. 32, 20.

Solidaginifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 475.

Aphis Cardui? *Kyber, Germ. Zeit.* ii. 2. *Kirby and Spence, Intr. Ent.* ii. 436. *Fonscol. Ann. Soc. Ent. Fr.* x. 170, 11. *Sir Oswald Mosley, Gard. Chron.* i. 628.

Aphis Campanulæ, Kalt. Mon. Pfl. i. 26, 14.

Aphis Taraxaci, Kalt. Mon. Pfl. i. 30, 18.

Cinara Jaceæ? *Sir Oswald Mosley, Gard. Chron.* i. 747.

Distance between the first and second veins at the base not half that between them at the tips; third farther from the second at the tip than it is at the base, as far from the second at the base as the second is from the first; first fork at the tip much nearer to the second fork than to the third vein, a little nearer to the third than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein much curved near the base, straight from thence to the tip, twice farther from the tip of the rib-vein than from the second fork.

Var. Fourth feeler-joint much shorter than the third; fifth much shorter than the fourth; sixth rather more than one-third of the fifth; seventh longer than the fifth.

a—d. England. Presented by F. Walker, Esq.

e—h. England.

i—p. England. (In Canada Balsam). From Mr. Walker's collection.

55. APHIS MILLEFOLII.

Aphis Millefolii, Fabr. Sp. Ins. ii. 386, 16. *Mant. Ins.* ii. 316, 20. *Ent. Syst.* iv. 214, 17. *Syst. Rhyn.* 296, 17. *Deg. Ins.* iii. 60, 9, pl. 4, f. 1—5. *Gmel. Ed. Syst. Nat.* i. 4, 2206, 50. *Schränk, Faun. Boic.* ii. 123, 1243. *Götze, Ent. Beitr.* 317, 29. *Stew. El. Nat. Hist.* ii. 110. *Shaw, Gen. Zool.* vi. 170, pl. 58, f. *sup. dext.* *Latr. Gen. Crust.* iii. 173. *St. Farg. et Serv. Enc. Méth.* x. 246. *Kalt. Mon. Pfl.* i. 10, 2. *Sir Oswald Mosley, Gard. Chron.* i. 684.

Achillaphis, Amyot, Ann. Soc. Ent. Fr. 2me Série, v. 474, 2, 517.

Aphis Achilleræ? *Fabr. Sp. Ins.* ii. 385, 14. *Mant. Ins.* ii. 315, 16. *Ent. Syst.* iv. 213, 15. *Syst. Rhyn.* 296, 15. *Gmel. Ed. Syst. Nat.* i. 2205, 49. *Kalt. Mon. Pfl.* i. 141, 110.

Aphis Althæa? *Harris, Exposit. Engl. Ins.* 66, pl. 17, f. 7—9.

Distance between the first and second veins at the tips more than that between them at the base; third very little farther from the second at the tip than at the base, hardly farther from the second at the base than the second is from the first; first fork much farther at

the tip from the second fork than it is from the third vein, nearer to the third vein than the third is to the second; second fork much nearer to the fourth vein than to the first fork; fourth vein much curved near the base, very slightly curved from thence to the tip.

Var. Fourth joint of the feelers much shorter than the third; fifth shorter than the fourth; sixth less than half the length of the fifth; seventh longer than the fifth.

a—h. England. Presented by F. Walker, Esq.

i—l. England. (In Canada Balsam). Presented by F. Walker, Esq.

56. APHIS ABSINTHII.

Aphis Absinthii, *Linn. Syst. Nat.* ii. 735, 19. *Faun. Suec.* 991. *Fabr. Mant. Ins.* ii. 315, 19. *Ent. Syst.* iv. 214, 20. *Syst. Rhyn.* 297, 20. *Gmel. Ed. Syst. Nat.* i. 5, 2206, 19. *Bonnet, Hist. Nat.* i. 7. *Scop. Ent. Carn.* 137, 401. *Müll. Zool. Dan. Prod.* 1270. *Schrank, Faun. Boic.* ii. 123, 1240. *Berk. Syn.* i. 120. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 705. *Burm. Handb. Ent.* ii. 95, 4. *Kalt. Mon. Pfl.* i. 31, 19. *Walk. Ann. Nat. Hist. Ser. 2*, ii. 202, 48.

Aphis Tanacetii, *Linn. Syst. Nat.* ii. 735, 18. *Faun. Suec.* 989. *Gmel. Ed. Syst. Nat.* i. 4, 2205, 18. *Fabr. Sp. Ins.* ii. 387, 31. *Mant. Ins.* ii. 316, 36. *Ent. Syst.* iv. 217, 36. *Syst. Rhyn.* 299, 36. *Geoff. Ins. Par.* i. 496, 8. *Schrank, Faun. Boic.* ii. 123, 1241. *Berk. Syn.* i. 120. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 706. *Burm. Handb. Ent.* ii. 14, 3. *Kalt. Mon. Pfl.* i. 47, 33. *Sir Oswald Mosley, Gard Chron.* i. 684.

Aphis Balsamitæ, *Müll. Zool. Dan. Prod.* 109, 1252. *Gmel. Ed. Syst. Nat.* i. 5, 2210, 71.

Aphis Artemisiæ, *Fonscol. Ann. Soc. Ent. Fr.* x. 162, 1.

Absinthifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 475.

Tanacetifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 476, 521.

Distance between the first and second veins more than twice farther at the tips than at the base; much nearer to the second at the base than at the tip, a little farther from the second at the base than the second from the first; first fork farther at the tip from the second fork than it is from the third vein, nearer to the third vein than the third vein is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein much curved near the base, slightly curved from thence to the tip,

very much nearer to the second fork than to the tip of the rib-vein.

Var. First fork nearer at the tip to the second fork than to the third vein; second fork as near to the fourth vein as to the first fork.

a. Scotland. Presented by E. Doubleday, Esq.

b—v. England. (In Canada Balsam). From Mr. Walker's collection.

57. APHIS ULMARIÆ.

Aphis Ulmariæ, Schrank, *Faun. Boic.* ii. 111, 1221. *Walk. Ann. Nat. Hist. Ser. 2*, ii. 421, 49. *Zool.* vii. *App.* liii.

Aphis Onobrychis, Fonscol. *Ann. Soc. Ent.* x. 169, 9.

Aphis Lathyri, Sir Oswald Mosley, *Gard. Chron.* i. 684.

Aphis Pisi, Kalt. *Mon. Pfl.* i. 23, 11.

Aphis Pisum, Harris, *Exposit. Engl. Ins.* 66, pl. 17, f. 10—12.

Distance between the first and second veins at the base less than half that between them at the tips; third a little farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first; first fork nearer to the second fork than to the third vein, a little nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein much curved near the base, straight towards the tip, almost twice farther from the tip of the rib-vein than from the second fork.

Var. Third vein a little nearer to the second at the base than the second is to the first.

Var. *The viviparous wingless female.* — Grass-green, nearly spindle-shaped, rather long and narrow, convex, smooth, slightly shining: feelers pale yellow, longer and much longer than the body; tips of the third and fourth, and the whole of the latter joints brown, or with the tips of all the joints and the whole of the seventh joint brown: mouth pale yellow or pale green, with a black or brown tip: nectaries like the mouth in colour, as long as one-fourth or as one-fifth of the body: legs pale green or pale yellowish green; knees, feet and tips of shanks brown or black.

a. Scotland. Presented by E. Doubleday, Esq.

b—m. England. Presented by F. Walker, Esq.

n—bb. England. (In Canada Balsam). From Mr. Walker's collection.

58. APHIS RUBI.

Aphis Rubi, *Kalt. Mon. Pfl. i.* 24, 12. *Réaumur. Ins. iii.* 319.
Walk. Ann. Nat. Hist. 2nd Série, ii. 423, 50. *Zool. vii. App.*
 liv.

Var. Third vein wanting after the emission of its first fork.
 Second fork and tip of the first wanting.

Distance between the first and second veins much more than twice farther at the tip than at the base; third much farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first; first fork very much farther at the tip from the second fork than from the third vein, much nearer to the third vein than the latter is to the second vein; fourth vein nearly straight towards the tip, much curved, much farther from the tip of the rib-vein than from the second fork.

a—f. England. Presented by F. Walker, Esq.

g—w. England. (In Canada Balsam). From Mr. Walker's collection.

59. APHIS URTICÆ.

Aphis Urticæ, *Fabr. Ent. Syst. iv.* 217, 35. *Syst. Rhyn.* 299, 35.
Schrank, Faun. Boic. 106, 1186. *Scop. Ent. Carn.* 139, 15.
Kalt. Mon. Pfl. i. 13, 4. *Walk. Ann. Nat. Hist. Ser. 2, ii.*
 427, 51. *Zool. vii. App.* liv.

Aphis Urticata? *Fabr. Sp. Ins. ii.* 387, 30. *Mant. Ins. ii.* 316, 35.
Gmel. Ed. Syst. Nat. i. 4, 2204, 46.

Urticifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série, v.* 475.

Var. Third vein wanting after the emission of its first fork.

Distance between the first and second veins twice farther at the tips than at the base; third much farther from the second at the tip than it is at the base, a little nearer to the second at the base than the second is to the first; first fork farther at the tip from the second fork than from the third vein, very much nearer to the third vein than the third is to the second; fourth vein curved, straight towards the tip, much farther from the tip of the rib-vein than from the second fork.

Var. Third vein nearly twice farther from the second at the tip than it is at the base, a little farther from the second at the base

than the second is from the first; first fork not one-third so far from the third vein as the third is from the second.

a—f. Scotland. Presented by E. Doubleday, Esq.

g—t. England. (In Canada Balsam). From Mr. Walker's collection.

60. APHIS VINCÆ.

Aphis Vincæ, *Walk. Ann. Nat. Hist. Ser. 2*, ii. 429, 52.

a, b. England. Presented by F. Walker, Esq.

61. APHIS MALVÆ.

Aphis Malvæ, *Sir Oswald Mosley, Gard. Chron.* i. 684. *Walk. Ann. Nat. Hist. Ser. 2*, ii. 429, 53. *Zool. vii. App.* xlvii.

Aphis Pelargonii, *Kalt. Mon. Pflanz.* i. 21, 10.

Aphis Bellidis? *Sir Oswald Mosley, Gard. Chron.* i. 684.

Aphis hibernaculorum? *Fonscol. Ann. Soc. Ent. Fr.* x. 181, 23.

Distance between the first and second veins more than twice farther at the tips than at the base; third hardly farther from the second at the tip than at the base, as far from the second at the base as the second is from the first; first fork at the tip nearer to the second fork than to the third vein, a little farther from the third vein than the third is from the second; second fork a little farther from the first than from the fourth vein; fourth vein curved, much farther from the tip of the rib-vein than from the second fork.

Var. First fork a little nearer to the third vein than the third is to the second.

Var. 1? *The viviparous wingless female.*—Oval, convex, pale greenish yellow, smooth, shining; feelers pale yellow, darker towards the tips, much longer than the body: mouth and nectaries pale yellow, with black tips, the latter as long as one-third of the body: legs very pale yellow; feet black. From *Myosotis*.

Var. 2? Green, smooth, shining: feelers black towards the tips: nectaries a little more than one-fourth of the length of the body: thighs pale green; knees brown; tips of the shanks black. From *Tussilago Farfara*.

Var. 3? Feelers brown, pale at the base, a little longer than the body: mouth and nectaries yellow, with brown tips, the latter

are between one-fourth and one-fifth of the length of the body ; legs pale yellow ; feet and tips of shanks brown. The young ones when just born are light.

Var. 4? Pale yellow, rather broad and flat, with a row of black dots along each side, and a large lively green spot at the base of each nectary : feelers pale yellow, much longer than the body ; tips of the joints black : mouth and nectaries pale yellow, with black tips, the latter as long as one-fourth of the body : legs pale yellow ; knees, feet, and tips of the shanks black.

Var. 5? Like the last, grass-green, tinged with yellow : head and fore-chest yellow. From *Digitalis*.

Var. 6? Dull pale or grass-green : hind part of the abdomen deep green on each side : feelers yellowish green, longer than the body ; tips of the second and of the third joints and the whole of the following joints brown : mouth and nectaries yellowish green with brown tips, the latter nearly one-fifth of the length of the body : legs yellowish green ; knees, feet, and tips of shanks brown. From *Tussilago Farfara*.

Var. 7? Head and fore-chest yellow : feelers pale yellow, much longer than the body ; tips of the joints black : mouth pale yellow, with a black tip : tube at the tip of the abdomen and nectaries yellow, the latter rather more than one-fourth of the length of the body. From *Rumex crispus* and other species.

Var. 8? Like the last : feelers very much longer than the body : nectaries with black tips, as long as one-third of the body : legs pale yellow ; feet and tips of the shanks black.

Var. 9? Body pale green : feelers dark brown, yellowish green at the base, fully as long as the body : mouth and nectaries pale green with brown tips, the latter about one-fifth of the length of the body : legs pale yellow ; feet and tips of thighs and of shanks dark brown.

Var. 10? Feelers and mouth very pale green ; tip of the latter and tips of the joints of the former black : nectaries pale green, with black tips : legs very pale green ; feet and tips of shanks black.

Var. 11? Pale yellow, with a row of impressions on each side, sometimes with a pale green tinge on the hind part : feelers pale yellow, a little longer than the body ; tips of the joints brown :

mouth and nectaries pale yellow with brown tips, the latter about one-fifth of the length of the body: legs pale yellow; knees sometimes brown; feet and tips of shanks brown.

Var. 12? Pale red, varied with yellow, while a pupa: head pale yellow: feelers black, pale yellow towards the base, longer than the body: mouth pale yellow, with a black tip. Winged insect buff: head and the lobes of the chest and of the breast brown: abdomen green, with a row of brown spots on each side: feelers black, longer than the body: mouth pale yellow, with a black tip: nectaries black, as long as one-fourth of the body: legs pale yellow; feet and tips of thighs and of shanks black: wing-ribs and rib-veins pale yellow: brands and veins brown.

Var. 13? Green: head, disk of chest, and feelers brown: disk of breast black: abdomen with black bands.

Var. 14? Pale green: head and disks of chest and of breast pale brown: feelers black: nectaries pale green, about one-fifth of the length of the body: legs pale green; feet and tips of shanks black.

Var. 15? Black: feelers a little longer than the body: abdomen rather dark green: nectaries dull green, nearly one-sixth of the length of the body: legs yellow; feet and tips of thighs and of shanks black: wings very much longer than the body; wing-ribs and rib-veins yellow; brands and branch-veins pale brown.

Var. 16? Mouth and nectaries pale green, with darker tips, the latter as long as one-fourth of the body: legs pale green; feet and tips of thighs and of shanks brown: wing-ribs and rib-veins pale green; the other veins brown. On the cowslip, in the beginning of May.

Var. 17? Head and disk of chest dull reddish buff: feelers brown, dull green at the base: mouth pale green, with a brown tip: nectaries yellow, with brown tips, from one-third to one-fifth of the length of the body: feet and tips of shanks brown: wing-ribs, rib-veins, and brands pale yellow; the other veins pale brown. The pupa has pale yellow or pale yellowish green rudimentary wings.

Variation in the wing-veins.—Second fork of third vein wanting.

a—m. England. (In Canada Balsam). From Mr. Walker's collection.

62. APHIS PALLIDA.

Aphis pallida, *Walk. Ann. Nat. Hist. Ser. 2*, ii. 430, 54.

Distance between the first and second veins at the tips about thrice that between them at the base; third hardly farther from the second at the tip than at the base, farther from the second at the base than the second is from the first; first fork as near to the second fork as to the third vein, nearer to the third vein than the third is to the second; second fork much nearer to the fourth vein than to the first fork; fourth vein curved, almost straight towards the tip, nearly twice farther from the tip of the rib-vein than from the second fork.

a-g. England. (In Canada Balsam). From Mr. Walker's collection.

63. APHIS FRAGARIÆ.

Aphis Fragariæ, *Walk. Ann. Nat. Hist. Ser. 2*, ii. 431, 55.

Var.? *The viviparous winged female.* Pupa elliptic, yellowish grass-green, with a lively green stripe down the middle of the body: feelers pale yellow, longer than the body; tips of the joints black: mouth pale yellow with a black tip: nectaries very pale yellow, pale green at the base, black at the tips, and nearly one-third of the length of the body: legs long, very pale green or almost white; knees, feet, and tips of shanks black. When winged it is black: the fore and the hind border of the fore-chest and the fore-breast dull greenish yellow, as is also the abdomen: feelers longer than the body: mouth dull yellow, with a black tip: nectaries black, and full one-fourth of the length of the body: legs yellow; feet and tips of thighs and of shanks black: wings very much longer than the body; wing-ribs yellow; wing-brand and veins brown.

England.

64. APHIS DIRHODA.

Aphis dirhoda, *Walk. Ann. Nat. Hist. Ser. 2*, iii. 43, 56. *Hardy, North British Agriculturist*, ii. 707.

Distance between the first and second veins at the base much less than half that between them at the tips; third very little

farther from the second at the tip than at the base, as far from the second at the base as the second is from the first; first fork a little nearer to the second fork at the tip than it is to the third vein, and a little nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein much curved near the base, straight towards the tip, farther from the tip of the rib-vein than from the second fork.

Var. Second fork nearer to the fourth vein than to the first fork; fourth vein nearer to the tip of the rib-vein than to the second fork.

Var. Second fork wanting.

a—r. England. (In Canada Balsam). From Mr. Walker's collection.

65. APHIS AVENÆ.

Aphis Avenæ, *Fabr. Sp. Ins.* ii. 386, 17. *Syst. Ent.* 736, 15. *Mant. Ins.* ii. 316, 22. *Ent. Syst.* iv. 214, 22. *Syst. Rhyn.* 297, 21. *Schrank, Faun. Boic.* ii. 1, 104. *Gmel. Ed. Syst. Nat.* i. 4, 2206, 52. *Villers, Ins.* 551, 50. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 705. *Macquart, Ann. Sci. Nat.* 1831, 468. *Kalt. Mon. Pfl. i.* 108, 6. *Walk. Ann. Nat. Hist. Ser. 2, iii.* 45, 57. *Hardy, North British Agriculturist*, ii. 596. *Aphis granaria*, *Kirby, Linn. Trans.* iv. 238. *Curtis, Journ. Roy. Agric. Soc.* vi.

Aphis Hordei, *Kyber, Germ. Mag. Zeit.* ii.

Aphis cerealis, *Kalt. Mon. Pfl. i.* 16, 6.

Bromaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 479.

Distance between the first and second veins at the base less than half that between them at the tips; third farther from the second at the tip than it is at the base, as near to the second at the base as the second is to the first; first fork nearer to the second fork than to the third vein, nearer to the third vein than the third vein is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein much curved near the base, almost straight towards the tip, very much nearer to the second fork than to the tip of the rib-vein.

Var. Seventh joint of the feelers a little shorter than the third.

a—o. England. (In Canada Balsam). From Mr. Walker's collection.

66. APHIS HIERACII.

Aphis Hieracii, *Schrank, Faun. Boic.* ii. 121, 1233. *Kalt. Mon. Pflanz.* i. 17, 7. *Walk. Ann. Nat. Hist. Ser.* 2, iii. 47, 58.

Distance between the first and second veins at the base much more than twice that between them at the tips; third farther from the second at the tip than it is at the base, much farther from the second at the base than the second is from the first; first fork as far from the second as from the third vein, much nearer to the third vein than the third is to the second; second fork as far from the first fork as from the fourth vein; fourth vein curved near the base, straight towards the tip, much farther from the tip of the rib-vein than from the second fork.

Var. Grayish green, blackish on the back, rather small, oval, convex, shining, and semipellucid: feelers black, much longer than the body: mouth pale yellow, with a black tip: nectaries dull green, with black tips, as long as one-fifth of the body: legs pale yellow: hind shanks dull yellow; feet and tips of thighs and of shanks black.

a—y. England. (In Canada Balsam). From Mr. Walker's collection.

67. APHIS ASTERIS.

Aphis Asteris, *Walk. Ann. Nat. Hist. Ser.* 2, iii. 48, 59.

a—d. England. (In Canada Balsam). Presented by F. Walker, Esq.

68. APHIS LACTUÆ.

Aphis Lactuæ, *Linn. Syst. Nat.* ii. 335, 14. *Réaumur. Ins.* iii. pl. 22, f. 3—5. *Bonnet, Hist. Nat.* i. 6. *Fabr. Sp. Ins.* ii. 390, 47. *Mant. Ins.* ii. 317, 52. *Ent. Syst.* iv. 220, 52. *Syst. Rhyn.* 301, 52. *Gmel. Ed. Syst. Nat.* i. 2205, 14. *Rossi, Faun. Etrusc.* 264, 1401. *Schrank, Faun. Boic.* ii. 1, 120, 1233. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 708. *Enc. Méth. Hist. Nat. Ins.* pl. 118, f. 11—13. *Fonscol. Ann. Soc. Ent.* x. 170, 10. *Kalt. Mon. Pflanz.* i. 37, 25. *Walk. Ann. Nat. Hist. Ser.* 2, iii. 49, 60. *Zool.* vii. *App.* liv., lvii.

Aphis Ribis Nigri, *Sir Oswald Mosley, Gard. Chron.* i. 684.

Distance between the first and second veins at the base much less than half that between them at the tips; third a little farther from the second at the tip than it is at the base, as far from the second at the base as the second is from the first; first fork very much nearer to the second at the tip than it is to the third vein, and nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein much curved near the base, almost straight from thence to the tip, much farther from the tip of the rib-vein than from the second fork.

Var. Small, very pale green, rather flat, slightly increasing in breadth from the head to the tip of the abdomen: head almost white: a large green spot at the base of each nectary: feelers white, much longer than the body; tip of each joint black: mouth almost white, with a black tip: nectaries almost white, with black tips, nearly one-fourth of the length of the body: legs almost white; knees brown; feet and tips of shanks black. On *Lapsana communis*, before the middle of October.

The viviparous winged female. Grass-green: head and chest black above and below: fore border and hind border of fore-chest green: a row of black spots on each side of the abdomen: feelers black, a little longer than the body: mouth pale yellow, with a black tip: nectaries black, as long as one-fourth of the body: legs pale yellow, rather long; feet and tips of thighs and of shanks black: wings colourless, much longer than the body; wing-ribs and rib-veins pale yellow; brand pale buff; branch-veins brown, their tips slightly clouded.

Var.? Oval, yellowish green, or greenish yellow, and often varied with pale red, head sometimes yellow: feelers pale yellow, darker towards their tips, or black, with a pale yellow base, a little longer than the body: mouth pale yellow, with a black tip: nectaries pale yellow, as long as one-third or one-fourth of the body, with black tips: legs yellow or pale yellow; feet and tips of shanks black.

The viviparous winged female. Small and gray: head, middle-chest, and middle-breast black: fore-chest pale red, its disk darker: feelers black, longer than the body: mouth pale yellow, with a black tip: nectaries pale yellow, with black tips, and more than one-fourth of the body: legs pale yellow; feet and tips of thighs and of shanks black: wings colourless, very much longer than the body; rib-veins pale yellow; brand pale brown; branch-veins brown. From *Cnicus arvensis*.

Var.? *The viviparous wingless female.* Small, oval, smooth, dull black or red, dark green towards the hind part of the abdomen: head sometimes pale yellow: feelers pale yellow, black towards the tips, and rather shorter than the body: mouth pale yellow; its tip and the eyes black: nectaries dull pale yellow, with black tips, as long as one-fourth of the body: legs dull pale yellow; knees, feet, and tips of shanks black. On *Lapsana communis*, before the middle of October.

Variation in the wing-veins. An additional fork at the second division of the third vein.

a—p. England. (In Canada Balsam). From Mr. Walker's collection.

69. APHIS RIBIS.

Aphis Ribis, *Linn. Syst. Nat.* ii. 733, 1. *Faun. Suec.* 977. *Fabr. Syst. Ent.* 734, 5. *Sp. Ins.* ii. 385. *Mant. Ins.* ii. 315, 7. *Ent. Syst.* iv. 211, 7. *Syst. Rhyn.* 295, 7. *Müll. Fn. Frid.* 29, 276. *Frisch. Ins.* ii. 9, pl. 14. *Réaum. Ins.* iii. 281—350, pl. 22, f. 7—10. *Hausm. Ill. Mag.* i. 437, 2. *Leeuwenh. Arc. Ep.* 90, 545, 548. *Blanch. Ins.* 164, pl. 14, f. 52. *Gmel. Ed. Syst. Nat.* i. 2201, 1. *Schrank, Faun. Boic.* ii. 1, 108, 1195. *Berk. Syn.* i. 119. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 703. *Kalt. Mon. Pfl.* i. 39, 26. *Sir Oswald Mosley, Gard. Chron.* i. 628. *Walk. Ann. Nat. Hist. Ser.* 2, iii. 295, 61.

Ribifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 476, 520.

Distance between the first and second veins at the base much less than half that between them at the tips; the third farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first; first fork at the tip as near to the second fork as to the third vein, much nearer to the third vein than the third is to the second; second fork nearer to the fourth vein than to the first fork; fourth vein curved near the base, straight towards the tip, very much nearer to the second fork than to the rib-vein.

a—f. Scotland. Presented by E. Doubleday, Esq.

g—ee. England. (In Canada Balsam). From Mr. Walker's collection.

70. APHIS GALEOPSIDIS.

Aphis Galeopsidis, *Kalt. Mon. Pflanz.* i. 35, 23. *Walk. Ann. Nat. Hist. Ser. 2*, iii. 298, 62. *Zool.* vi. 2251.

Distance between the first and second veins at the tips more than twice that between them at the base; third very much farther from the second at the tip than it is at the base, a little nearer to the second at the base than the second is to the first; first fork at the tip nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second; second fork much farther from the fourth vein than from the first fork; fourth vein curved near the base, straight towards the tip, very much nearer to the second fork than to the tip of the rib-vein.

Var. First fork a little nearer to the third vein than to the second fork.

Var.? *The viviparous winged female.* Head, disk of the fore-chest, of the middle-chest, and of the middle-breast brown: a few slight black bands on the disk of the abdomen: feelers black, a little longer than the body: mouth yellow, with a black tip: nectaries pale yellow, with black tips, as long as one-sixth of the body: legs pale yellow; knees, feet, and tips of shanks black: wings colourless, and much longer than the body; wing-ribs pale yellow; rib-veins and the wing-bands pale brown; the other veins brown. From *Polygonum Persicaria*, in October.

a—o. England. (In Canada Balsam). From Mr. Walker's collection.

71. APHIS ABIETINA.

Aphis Abietina, *Walk. Ann. Nat. Hist. Ser. 2*, iii. 301, 63.

Two foveæ on the head.

Distance between the first and second veins about thrice farther at the tips than at the base; third farther from the second at the tip than at the base, much farther from the second at the base than the second is from the first; first fork much nearer to the third vein than

to the second fork, not half so far from the third as the third is from the second ; second fork much nearer to the fourth vein than to the first fork ; fourth vein long, hardly curved, nearer to the second fork than to the tip of the rib-vein.

a—f. England. (In Canada Balsam). From Mr. Walker's collection.

72. APHIS ROSARUM.

Aphis Rosarum, *Kalt. Mon. Pflanz.* i. 101, 76. *Walk. Ann. Nat. Hist. Ser.* 2, iii. 302, 64.

a—y. England. (In Canada Balsam). From Mr. Walker's collection.

73. APHIS AVELLANÆ.

Aphis Avellanæ, *Schrank, Faun. Boic.* ii. 112, 1207. *Kalt. Mon. Pflanz.* i. 143, 116. *Walk. Ann. Nat. Hist. Ser.* 2, iii. 304, 65.

Aphis Coryli, *Sir Oswald Mosley, Gard. Chron.* i. (1841), 628.

Distance between the first and second veins at the tips thrice that between them at the base ; third farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first ; first fork very much nearer to the second fork than to the third vein, as near to the third as the third is to the second ; second fork as near to the fourth vein as to the first fork ; fourth vein curved near the base, straight towards the tip, nearer to the second fork than to the tip of the rib-vein.

a—v. England. (In Canada Balsam). From Mr. Walker's collection.

74. APHIS URTICARIA.

Aphis Urticaria, *Kalt. Mon. Pflanz.* i. 57, 39. *Walk. Ann. Nat. Hist. Ser.* 2, iv. 41, 66.

Aphis Urticæ, *Fonscol. Ann. Soc. Ent. Fr.* x. 180, 21.

Distance between the first and second veins at the base much less than half that between them at the tips ; third much farther

from the second at the tip than it is at the base, a little farther from the second at the base than the second is from the first; first fork nearer to the second fork at the tip than it is to the third vein, and much nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein slightly curved, farther from the tip of the rib-vein than from the second fork.

a—u. England. (In Canada Balsam). From Mr. Walker's collection.

75. APHIS TETRARHODA.

Aphis tetrarhoda, *Walk. Ann. Nat. Hist. Ser. 2*, iv. 42, 67.

Distance between the first and second veins at the base more than half that between them at the tips; third vein very much farther from the second at the tip than at the base, much nearer to the second at the base than the second is to the first; first fork a little nearer to the third vein than to the second fork, much nearer to the third vein than the third is to the second; second fork nearer to the fourth vein than to the first fork; fourth vein much curved near the base, straight towards the tip, a little farther from the tip of the rib-vein than from the first fork.

a—l. England. (In Canada Balsam). From Mr. Walker's collection.

76. APHIS CERASI.

Aphis Cerasi, *Fabr. Syst. Ent.* 734, 4. *Sp. Ins.* ii. 384, 5. *Mant. Ins.* 315, 6. *Ent. Syst.* iv. 211, 6. *Syst. Rhyn.* 295, 6. *Gmel. Ed. Syst. Nat.* i. 2203, 39. *Schrank. Faun. Boic.* ii. 1. *Müll. Zool. Dan. Prod.* 110, 1256. *Rossi, Faun. Etrusc.* 260, 1369. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 703. *Fonscol. Ann. Soc. Ent. Fr.* x. 179, 12. *Luxford, Entomologist*, 159, 40. *Sir Oswald Mosley, Gard. Chron.* i. 628. *Kalt. Mon. Pfl.* i. 45, 31. *Ratz. Forst. Ins.* iii. 216, 3. *Walk. Ann. Nat. Hist. Ser. 2*, iv. 43, 68. *Fitch, The Senate*, No. 30, 65.

Cerasaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 477.

Distance between the first and second veins at the base hardly more than one-third of that between them at the tips; third farther from the second at the tip than it is at the base, a little farther from

the second at the base than the second is from the first; first fork hardly nearer to the second fork at the tip than it is to the third vein, a little nearer to the third vein than the third is to the second; second fork nearer to the fourth vein than to the first fork; fourth vein slightly curved, straight towards the tip, farther from the tip of the rib-vein than from the second fork.

a. Scotland. Presented by E. Doubleday, Esq.

b—r. England. (In Canada Balsam). From Mr. Walker's collection.

77. APHIS TRIRHODA.

Aphis trirhoda, *Walk. Ann. Nat. Hist. Ser. 2*, iv. 45, 69.

Distance between the first and second veins at the tips more than twice that between them at the base; third nearer to the second at the base than at the tip, as near to the second at the base as the second is to the first; first fork generally nearer to the second fork than to the third vein, as near to the third as the third is to the second; second fork generally as near to the first fork as to the fourth vein; fourth vein farther from the rib-vein than from the second fork.

a—g. England. (In Canada Balsam). From Mr. Walker's collection.

78. APHIS BRASSICÆ.

Aphis Brassicæ, *Linn. Syst. Nat.* ii. 734, 12. *Faun. Suec.* 2205, 985. *Fabr. Sp. Ins.* ii. 388, 35. *Mant. Ins.* ii. 316, 40. *Ent. Syst.* iv. 218, 41. *Syst. Rhyn.* 300, 41. *Gmel. Ed. Syst. Nat.* i. 2205, 12. *Schrank, Faun. Boic.* ii. 119, 1228. *Müll. Fn. Frid.* 30, 283. *Frisch. Ins.* xi. 10, pl. 3, f. 15, 81. *Harr. Exposit. Engl. Ins.* 66, pl. 17, f. 4—6. *Berk. Syn.* i. 120. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 207. *Swamm. Ins.* v. 535. *Kalt. Mon. Pflau.* i. 106, 81. *Harris, Ins. New Engl.* 190. *Curt. Journ. Roy. Agric. Soc.* iii. 54, pl. C. f. 5, 6. *Walk. Ann. Nat. Hist. Ser. 2*, iv. 46, 70. *Fitch, The Senate*, No. 30, 65.

Aphis Rapparis, *Schrank, Faun. Boic.* ii. 1, 119, 1229.

Aphis Isatidis, *Fonscol. Ann. Soc. Ent. Fr.* x. 165, 4.

Aphis Floris Rapæ, *Curt. Journ. Roy. Agric. Soc.* iii. 55, pl. C. f. 7, 8.

- Cinara Raphani*, *Sir Oswald Mosley, Gard. Chron.* i. 827.
Cinara Brassicæ, *Sir Oswald Mosley, Gard. Chron.* i. 827.
Crambaphis, Amyot, Ann. Soc. Ent. Fr. 2me Série, v. 478.

Distance between the first and second veins at the base a little more than half that between them at the tips; third farther from the second at the tip than at the base, a little nearer to the second at the base than the second is to the first; first fork a little nearer to the second fork than to the third vein, a little nearer to the third vein than the third is to the second; second fork very little nearer to the fourth vein than to the first fork; fourth vein slightly curved, very little nearer to the second fork than to the tip of the rib-vein.

a—h. England. (In Canada Balsam). Presented by F. Walker, Esq.

79. APHIS CAPREÆ.

- Aphis Capreæ*, *Fabr. Syst. Ent.* 217, 33. *Sp. Ins.* ii. 384, 2. *Mant. Ins.* ii. 315, 3. *Ent. Syst.* iv. 211, 3. *Syst. Rhyn.* 294, 3. *Gmel. Ed. Syst. Nat.* i. 2203, 41. *Schrank, Faun. Boic.* ii. 104, 1179. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 703. *Kalt. Mon. Pflanz.* i. 109, 84. *Ratz. Forst. Ins.* iii. 218, 12. *Walk. Ann. Nat. Hist. Ser.* 2, iv. 195, 71. *Zool. vii. App.* iv.
Aphis Pastinacæ, *Linn. Syst. Nat.* ii. 1, 734, 3. *Faun. Suec.* 977. *Fabr. Mant. Ins.* ii. 315, 13. *Ent. Syst.* iv. 213, 13. *Syst. Rhyn.* 296, 13. *Gmel. Ed. Syst. Nat.* i. 4, 2202, 3. *Turt. Syst. Nat.* ii. 703.
Aphis Angelicæ? *Réaumur. Ins.* iii. 322.
Aphis Archangelicæ, *Scop. Ent. Carn.* 137, 400. *Gmel. Ed. Syst. Nat.* i. 4, 2210, 64.
Aphis Ægopodii, *Scop. Ent. Carn.* 399. *Fabr. Sp. Ins.* ii. 387, 28. *Mant. Ins.* ii. 316, 33. *Ent. Syst.* iv. 217, 33. *Syst. Rhyn.* 299, 33. *Gmel. Ed. Syst. Nat.* i. 2204, 44. *Stew. El. Nat. Hist.* ii. 110.
Aphis Podagrariæ, *Scop. Ent. Carn.* 399. *Schrank, Faun. Boic.* ii. 1, 110.
Cinara Capreæ? *Sir Oswald Mosley, Gard. Chron.* i. 748
Ægopodaphis, Amyot, Ann. Soc. Ent. Fr. 2me Série, v. 479.

Distance between the first and second veins at the tips about thrice that between them at the tips; third as far from the second at the tip as it is at the base, much farther from the second at the base than the second is from the first; first fork at the tip as near to

the second fork as to the third vein, much nearer to the third vein than the third is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein curved near the base, almost straight towards the tip, much farther from the tip of the rib-vein than from the second fork.

Var. Second fork wanting towards the tip.

a. Scotland. Presented by E. Doubleday, Esq.

b—k. England. (In Canada Balsam). From Mr. Walker's collection.

80. APHIS PERSICÆ.

Aphis Persicæ, *Sulz. Hist. Ins.* 105, pl. 11, f. 4, 5. *Gmel. Ed. Syst. Nat.* ii. 2209, 60. *Morren, Ann. Sci. Nat.* 1836. *Fonscol. Ann. Soc. Ent. Fr.* x. 14. *Sir Oswald Mosley, Gard. Chron.* i. (1841), 684. *Amyot et Serr. Hist. Nat. Hém.* 601. *Kalt. Mon. Pfl.* i. 93, 68. *Walk. Ann. Nat. Hist. Ser.* 2, v. 72. *Aphis Persicariæ?* *Hartig, Germ. Ent. Zeit.* iii. 370, 12.

Distance between the first and second veins nearly thrice farther at the tips than at the base; third farther from the second at the tip than at the base, farther from the second at the base than the second is from the first; first fork a little farther from the second fork than from the third vein, very much nearer to the third vein than the third is to the second; second fork a little farther from the first fork than from the fourth vein; fourth vein curved, hardly nearer to the second fork than to the tip of the rib-vein.

a—t. England. (In Canada Balsam). From Mr. Walker's collection.

81. APHIS RUMICIS.

Aphis Rumicis, *Linn. Syst. Nat.* ii. 734, 5. *Faun. Suec.* 979. *Bonnet, Hist. Nat.* i. 6. *Fabr. Sp. Ins.* ii. 385, 11. *Mant. Ins.* ii. 315, 12. *Syst. Ent.* 735, 10. *Ent. Syst.* iv. 213, 12. *Syst. Rhyn.* 296, 12. *Schrank, Faun. Boic.* ii. 1, 111, 1204. *Gmel. Ed. Syst. Nat.* i. 2203, 5. *Berk. Syn.* i. 119. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 703. *Kalt. Mon. Pfl.* i. 81, 58. *Walk. Ann. Nat. Hist. Ser.* 2, v. 17, 73. *Zool.* vi. 2247, 2249; vii. *App.* xxxiv. xlix. li. lii.

- Aphis Papaveris*, *Fabr. Gen. Ins.* 303. *Sp. Ins.* ii. 388, 33. *Mant. Ins.* ii. 316, 38. *Ent. Syst.* iv. 218, 38. *Syst. Rhyn.* 299, 38. *Gmel. Ed. Syst. Nat.* i. 2202, 36. *Schrank, Faun. Boic.* ii. 1, 118, 1225. *Rossi, Faun. Etrusc.* 263, 1392. *Turt. Syst. Nat.* ii. 707. *Léon-Duf. Réch. sur les Hémipt.* iv. 242, pl. 9, f. 114, 115. *Fonscol. Ann. Soc. Ent. Fr.* x. 162, 2.
- Aphis Fabæ*, *Scop. Ent. Carn.* 139, 408. *Gmel. Ed. Syst. Nat.* i. 2210, 67. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 710. *Kirby and Spence, Intr. Ent.* i. 175. *Bingley, Hist. Nat.* iii. 189. *Curt. Journ. Roy. Agric. Soc.* vii. 418, pl. R. f. 21, 22; x. pt. 1, pl. U. f. 1—4.
- Aphis Atriplicis*, *Linn. Faun. Suec.* 1000. *Fabr. Ent. Syst.* iv. 217, 31. *Syst. Rhyn.* 298, 31. *Gmel. Ed. Syst. Nat.* i. 4, 2209, 32. *Berk. Syn.* i. 121. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 706.
- Aphis Aparines*, *Fabr. Syst. Ent.* 735, 8. *Sp. Ins.* 385, 9. *Mant. Ins.* ii. 315, 10. *Ent. Syst.* iv. 212, 10. *Syst. Rhyn.* 295, 10. *Gmel. Ed. Syst. Nat.* i. 2208, 59. *Schrank, Faun. Boic.* ii. 105, 1183. *Kalt. Mon. Pfl.* i. 46, 32.
- Aphis armata*, *Hausm. Illig. Mag.* i. 439, 30.
- Aphis Craccæ*, *Linn. Syst. Nat.* ii. 735, 13. *Faun. Suec.* 986. *Deg. Ins.* iii. 58, 8, pl. 2, f. 14—19. *Scop. Ent. Carn.* 407, 12. *Gmel. Ed. Syst. Nat.* i. 2205, 13. *Schrank, Faun. Boic.* iii. 119, 1231. *Berk. Syn.* 120. *Stew. El. Nat. Hist.* ii. 110. *Kalt. Mon. Pfl.* i. 86, 62.
- Aphis hortensis*, *Fabr. Sp. Ins.* ii. 387, 26. *Mant. Ins.* ii. 316, 31. *Gmel. Ed. Syst. Nat.* i. 4, 2204, 42.
- Aphis Chenopodii*, *Schrank, Faun. Boic.* ii. 109, 1196. *Kalt. Mon. Pfl.* i. 107, 82.
- Aphis Viciæ*, *Fabr. Sp. Ins.* ii. 390, 46. *Mant. Ins.* ii. 317, 51. *Ent. Syst.* iv. 220, 51. *Syst. Rhyn.* 301, 51. *Turt. Syst. Nat.* ii. 708.
- Aphis Thlapseos*, *Schrank, Faun. Boic.* ii. 118, 1227.
- Aphis Galii?* *Kalt. Mon. Pfl.* i. 87, 63.
- Aphis Genistæ*, *Scop. Ent. Carn.* 139, 409. *Gmel. Ed. Syst. Nat.* i. 2210, 68. *Fonscol. Ann. Soc. Ent. Fr.* x. 103, 3. *Kalt. Mon. Pfl.* 90, 66.
- Aphis Laburni*, *Kalt. Mon. Pfl.* 85, 61.
- Aphis Euphorbiæ?* *Kalt. Mon. Pfl.* 94, 69.
- Rumicifex*, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 478.
- Meconaphis Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 478.
- Craccifex, Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 478.
- Genistifex, Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 478.
- Aphis Acetosæ*, *Linn. Syst. Nat.* ii. 734, 6. *Fabr. Sp. Ins.* ii. 389, 43. *Mant. Ins.* ii. 317, 48. *Ent. Syst.* iv. 220, 49. *Syst. Rhyn.* 301, 49. *Geoff. Ins. Par.* ii. 496, 9. *Réaum. Ins.* iii. 286. *Gmel. Ed. Syst. Nat.* 1, 2203, 6. *Turt. Syst. Nat.* ii. 708.

Aphis Galii Scabri? *Schrank, Faun. Boic.* ii. 1, 105.

Cinara Rumicis, *Sir Oswald Mosley, Gard. Chron.* i. 747.

Aphis Dahliæ, *Sir Oswald Mosley, Gard. Chron.* i. 628.

Distance between the first and second veins at the base much less than half of that between them at the tips; third much farther from the second at the tip than it is at the base, as far from the second at the base as the second is from the first; first fork as near to the second fork as to the third vein, very much nearer to the third vein than the third is to the second; second fork as far from the fourth vein as from the first fork; fourth vein slightly curved, much nearer to the second fork than to the tip of the rib-vein.

Var. Second fork of third vein wanting.

Var. Deep black, shining: feelers black, a little shorter than the body: mouth pale yellow, with a black tip: nectaries black, as long as one-sixth of the body: legs pale yellow, moderately long; posterior thighs, fore-knees, feet and tips of shanks black: wings colourless, much longer than the body; alulæ and rib-veins pale yellow; brand yellow; veins brown. From *Poa fluitans*, beginning of July.

Var. Third vein farther from the second at the base than the second is from the first; first fork nearer to the second fork than to the third vein, a little nearer to the third vein than the third is to the second; fourth vein a little nearer to the second fork than to the tip of the rib-vein.

a. Scotland. Presented by E. Doubleday, Esq.

b—h. England.

i—p. England. On the dock. (In Canada Balsam). From Mr. Walker's collection.

q—u. England. On the bean. (In Canada Balsam). From Mr. Walker's collection.

82. APHIS SYMPHITI.

Aphis Symphiti, *Schrank, Faun. Boic.* ii. 1, 107. *Kalt. Mon. Pfl.* i. 61, 43. *Walk. Ann. Nat. Hist. Ser.* 2, v. 25, 74.

Distance between the first and second veins at the base less than half of that between them at the tips; third a little farther from the second at the tip than it is at the base, as far from the second

at the base as the second is from the first; first fork not half the distance from the second fork that it is from the third vein, hardly nearer to the third vein than the third is to the second; second fork a little farther from the fourth vein than from the first fork; fourth vein curved, straight towards the tip, about half as far from the second fork as from the tip of the rib-vein.

Var. Second fork of third vein wanting.

a—z. England. (In Canada Balsam). From Mr. Walker's collection.

83. APHIS NYMPHÆÆ.

Aphis Nymphææ, *Linn. Syst. Nat.* ii. 714, 10. *Faun. Suec.* 983. *Fabr. Mant. Ins.* ii. 315, 17. *Ent. Syst.* iv. 214, 18. *Syst. Rhyn.* 297, 18. *Schrank, Faun. Boic.* ii. 1, 117. *Gmel. Ed. Syst. Nat.* i. 2204, 10. *Müller, Ins.* 1264. *Turt. Syst. Nat.* ii. 703. *Fonscol. Ann. Soc. Ent. Fr.* x. 166, 5. *Kält. Mon. Pflan.* i. 104, 79. *Walk. Ann. Nat. Hist. Ser.* 2, v. 26, 75.

Aphis Butomi, *Schrank, Faun. Boic.* ii. 114, 1212.

Nymphæifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 478.

Distance between the first and second veins at the base not one-third of that between them at the tips; third much farther from the second at the tip than at the base, much farther from the second at the base than the second is from the first; first fork much nearer to the second fork than to the third vein, much nearer to the third vein than the third is to the second; second fork as far from the fourth vein as from the first fork; fourth vein slightly curved, nearer to the second fork than to the tip of the rib-vein.

Var. Second fork nearer to the first fork than to the fourth vein.

a—h. England. (In Canada Balsam). From Mr. Walker's collection.

84. APHIS SAMBUCI.

Aphis Sambuci, *Linn. Syst. Nat.* ii. 734, 4. *Faun. Suec.* 978. *Bonnet, Hist. Nat.* i. *Frisch. Ins.* ii. 14, pl. 18. *Lister, Ins.* 397, 40. *Geoff. Ins. Par.* i. 495, 3. *Réaum. Ins.* iii. 281,

350, pl. 8, f. 5—15. *Fabr. Sp. Ins.* ii. 384, 3. *Mant. Ins.* ii. 315, 4. *Ent. Syst.* iv. 211, 4. *Syst. Rhyn.* 294, 4. *Gmel. Ed. Syst. Nat.* i. 2202, 4. *Berk. Syn.* i. 110. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 703. *Schrank, Faun. Boic.* ii. 1, 111, 1202. *Enc. Méth. Hist. Nat. Ins.* pl. 115, f. 9. *Kalt. Mon. Pflanz.* i. 83, 60. *Walk. Ann. Nat. Hist. Ser.* 2, v. 27, 76.

Cinara Sambuci, *Sir Oswald Mosley, Gard. Chron.* i. 827.

Sambucifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 477, 524.

Distance between the first and second joints at the tips more than twice that between them at the base; third much farther from the second at the tip than it is at the base, much farther from the second at the base than the second is from the first; first fork very much nearer to the second fork than to the third vein, not nearer to the third vein than the third is to the second; second fork as far from the fourth vein as from the first fork; fourth vein curved, very much nearer to the second fork than to the tip of the rib-vein.

Var. Second fork wanting towards the tip.

a—d. England. (In Canada Balsam). Presented by F. Walker, Esq.

85. APHIS MALI.

Aphis Mali, *Fabr. Syst. Ent.* 737, 19. *Sp. Ins.* ii. 387, 24. *Mant. Ins.* ii. 316, 29. *Ent. Syst.* iv. 217, 29. *Syst. Rhyn.* 298, 29. *Gmel. Ed. Syst. Nat.* i. 4, 2208, 58. *Schrank, Faun. Boic.* ii. 1, 116. *Gotze, Ent. Beit.* ii. 317. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 70, 6. *Shaw, Gen. Zool.* vi. pl. 58. *Ramdohr, Abhandlung Verd. Werkz. Ins.* 1811. *Schmidberger*, 284. *St. Farg. et Serv. Enc. Méth.* x. 246. *Spence, Trans. Ent. Soc.* iii. 98. *Rusticus, Ent. Mag.* i. 143, iii. 337. *Kalt. Mon. Pflanz.* i. 72, 52. *Ratz. Forst. Ins.* iii. 217, 7. *Walk. Ann. Nat. Hist. Ser.* 2, v. 269, 77. *Zool.* vi. 2251. *Fitch, The Senate*, No. 30, 65.

Aphis Pomi, *Réaumur. Ins.* iii. 281—350, pl. 21, f. 5. *Deg. Ins.* iii. 53, 6, pl. 3, f. 18—26. *Latr. Gen. Crust.* iii. 173. *Sir Oswald Mosley, Gard. Chron.* i. 684.

Aphis Pyri, *Réaumur. Ins.* iii. 281, 350, pl. 24, f. 1—4. *Fonscol. Ann. Soc. Ent. Fr.* x. 189, 32. *Hartig, Germ. Ent. Zeit.* iii. 369, 11.

Aphis Oxyacanthæ, *Schrank, Faun. Boic.* ii. 116, 1219.

Oxyacanthaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 478, 525.

Distance between the first and second veins at the base less than half that between them at the tips; third much farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first; first fork very much nearer to the second fork at the tip than to the third vein, as near to the third vein as the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein curved near the base, almost straight towards the tip, very much nearer to the second fork than to the tip of the rib-vein.

Var. First fork a little nearer to the third vein than the third is to the second.

Var. Distance between the first and second veins at the base less than one-third of that between them at the tips; third a little farther from the second at the tip than at the base, much farther from the second at the base than the second is from the first; first fork at the tip four times farther from the third vein than from the second fork; second fork more than twice farther from the fourth vein than from the first fork.

a—u. England. (In Canada Balsam). From Mr. Walker's collection.

86. APHIS PADI.

Aphis Padi, *Linn. Syst. Nat.* ii. 734, 8. *Faun. Suec.* 981. *Réaumur. Ins.* iii. pl. 23, f. 9, 10. *Fabr. Sp. Ins.* ii. 389, 45. *Mant. Ins.* ii. 317, 50. *Ent. Syst.* iv. 220, 50. *Syst. Rhyn.* 301, 50. *Gmel. Ed. Syst. Nat.* i. 2203, 8. *Schrank, Faun. Boic.* ii. 115, 1216. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 708. *Kalt. Mon. Pflanz.* i. 74, 53. *Ratz. Forst. Ins.* iii. 217, 8. *Walk. Ann. Nat. Hist. Ser. 2*, v. 274, 78.

Padifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 477, 523.

Distance between the first and second veins at the tips full thrice that between them at the base; third very much farther from the second at the tip than at the base, very much farther from the second at the base than the second is from the first; first fork much nearer to the second fork than to the third vein, much nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein long, curved near the base, straight towards the tip, full twice farther from the tip of the rib-vein than from the second fork.

a. Scotland. Presented by E. Doubleday, Esq.

b—zzz. England. (In Canada Balsam). From Mr. Walker's collection.

87. APHIS SORBI.

Aphis Sorbi, *Kalt. Mon. Pfl. i.* 70, 51. *Ratz. Forst. Ins. iii.* 217, 6. *Walk. Ann. Nat. Hist. Ser. 2, v.* 276, 79.

Distance between the first and second veins at the base about half that between them at the tips; third much farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first; first fork nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second; second fork generally as near to the fourth vein as to the first fork; fourth vein slightly curved, a little nearer to the second fork than to the tip of the rib-vein.

a—o. England. (In Canada Balsam). From Mr. Walker's collection.

88. APHIS EUONYMI.

Aphis Euonymi, *Fabr. Syst. Ent.* 736, 14. *Sp. Ins. ii.* 386, 17. *Mant. Ins. ii.* 316, 21. *Ent. Syst. iv.* 214, 21. *Syst. Rhyn.* 297, 21. *Gmel. Ed. Syst. Nat. i.* 2206, 51. *Schrank, Faun. Boic. ii.* 108. *Turt. Syst. Nat. ii.* 705. *Sir Oswald Mosley, Gard. Chron. i.* 684. *Kalt. Mon. Pfl. i.* 79, 57. *Walk. Ann. Nat. Hist. Ser. 2, v.* 278, 80.

Euonymaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série, v.* 478.

Distance between the first and second veins at the base a little more than one-third of that between them at the tips; third very much farther from the second at the tip than at the base, as far from the second at the base as the second is from the first; first fork very much nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second; second fork as far from the fourth vein as from the first fork; fourth vein slightly curved, much nearer to the second fork than to the tip of the rib-vein.

Var. Third vein of one wing with an additional branch between the two forks.

a—l. England. (In Canada Balsam). From Mr. Walker's collection.

89. APHIS LYCHNIDIS.

Aphis Lychnidis, *Linn. Syst. Nat.* ii. 734, 7. *Faun. Suec.* 980. *Bonnet, Hist. Nat.* i. 6. *Réaum. Ins.* iii. 281, 340. *Fabr. Syst. Ent.* 737, 1. *Sp. Ins.* ii. 384, 1. *Mant. Ins.* ii. 315, 2. *Ent. Syst.* iv. 210, 2. *Syst. Rhyn.* 294, 2. *Gmel. Ed. Syst. Nat.* i. 2203, 7. *Schrank, Faun. Boic.* ii. 114, 1214. *Berk. Syn.* i. 119. *Stew. El. Nat. Hist.* ii. 110. *Turt. Hist. Nat.* ii. 703. *Kalt. Mon. Pfl.* i. 92, 67. *Walk. Ann. Nat. Hist. Ser.* 2, v. 280, 81.

Aphis Cucubali, *Linn. Faun. Suec.* 719.

Distance between the first and second veins at the base full half that between them at the tips; third a little farther from the second at the tip than at the base, as far from the second at the base as the second is from the first: first fork nearer to the second fork than to the third vein, a little nearer to the third vein than the third is to the second; second fork a little nearer to the first fork than to the fourth vein; fourth vein curved, as near to the tip of the rib-vein as to the second fork.

a—d. Scotland. Presented by E. Doubleday, Esq.

e—z. England. (In Canada Balsam). From Mr. Walker's collection.

90. APHIS PRUNI.

Aphis Pruni, *Fabr. Sp. Ins.* ii. 385, 12. *Mant. Ins.* ii. 315, 14. *Ent. Syst.* iv. 213, 14. *Syst. Rhyn.* 296, 14. *Deg. Ins.* iii. 49, 5, pl. 2, f. 1—8. *Schrank, Faun. Boic.* ii. 115, 1217. *Geoff. Ins. Par.* i. 497, 10. *Réaum. Ins.* iii. 296, pl. 23, f. 9, 10. *Götze, Ent. Beitr.* ii. 312. *Gmel. Ed. Syst. Nat.* i. 2202, 37. *Scop. Ent. Carn.* 138, 406. *Rossi, Faun. Etrusc.* 260, 1374. *Stew. El. Nat. Hist.* ii. 110. *Turt. Hist. Nat.* ii. 704. *Enc. Méth. Hist. Nat. Ins.* pl. 116, f. 7, 8. *Latr. Gen. Crust.* iii. 173. *St. Farg. et Serv. Enc. Méth.* x. 245. *Schmidb. Kollar, Treatise on Injurious Insects, transl.* 284. *Sir Oswald Mosley, Gard. Chron.* i. 684. *Kalt. Mon. Pfl.* i. 52, 37. *Ratz. Forst. Ins.* iii. 216, 4. *Walk. Ann. Nat. Hist. Ser.* 2, v. 388, 82.

Aphis Arundinis, *Fabr. Sp. Ins.* 385, 7. *Mant. Ins.* ii. 315, 8. *Ent. Syst.* iv. 212, 8. *Syst. Rhyn.* 295, 8. *Gmel. Ed. Syst. Nat.* i. 2202, 35. *Kalt. Mon. Pfl.* i. 54, 38.

Prunifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série, v. 476, 322.*

Calamaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série, v. 477.*

Distance between the first and second veins at the tips much more than twice that between them at the base; third much farther from the second at the tip than at the base, farther from the second at the base than the second is from the first; first fork much nearer to the second fork than to the third vein, as near to the third vein as the third is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein slightly curved, much nearer to the second fork than to the tip of the rib-vein.

Var.? *The viviparous wingless female.* Pale or dark green, elliptical, rather long and narrow: feelers a little more than half the length of the body: mouth pale green or pale yellow: nectaries black: legs pale green or pale yellow, moderately long; knees, feet, and tips of shanks darker.

The viviparous winged female. Pale green while a pupa: head, disk of chest and that of breast dark gray, when the wings are unfolded: feelers black, nearly as long as the body: nectaries hardly projecting above the surface of the abdomen: wing-ribs yellow; brand and veins brown. From *Arundo Phragmitis* at the end of September, near Newcastle.

Var.? *The oviparous wingless female.* Narrow, rather flat, slightly increasing in breadth from the head till near the tip of the abdomen, pale yellowish green, velvet-like; a vivid bluish-green stripe down the back and a more indistinct stripe on each side: feelers black, pale yellow towards the base, less than half the length of the body: mouth pale yellow with a black tip: nectaries pale yellow with black tips, about one-eighth of the length of the body: legs pale yellow, rather short; knees, feet, and tips of shanks black. Eggs green, spindle-shaped, very large.

The wingless male. Linear, narrower than the female: feelers nearly as long as the body: head sometimes buff, and chest sometimes yellow. From *Arundo arenaria* in the beginning of October, near Fleetwood.

a. Scotland. Presented by E. Doubleday, Esq.

b—z. England. (In Canada Balsam). From Mr. Walker's collection.

91. APHIS LYTHRI.

Aphis Lythri, Schrank, *Faun. Boic.* ii. 115, 1215. *Kalt. Mon. Pfl.* i. 51, 36. *Walk. Ann. Nat. Hist. Ser. 2*, v. 389, 83.
Lythrapiis, Amyot, *Ann. Soc. Ent. Fr. 2me Série*, v. 477.

Distance between the first and second veins at the base a little less than half that between them at the tips; third farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first; first fork nearer to the second fork at the tip than to the third vein, a little nearer to the third vein than the third is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein much curved near the base, almost straight towards the tip, much nearer to the second fork than to the tip of the rib-vein.

Var. Second fork a little nearer to the first fork than to the fourth vein.

a—*z*. England. (In Canada Balsam). From Mr. Walker's collection.

92. APHIS TUSSILAGINIS.

Aphis Tussilaginis, *Walk. Ann. Nat. Hist. Ser. 2*, v. 390, 84.

a. England. Presented by F. Walker, Esq.

93. APHIS DIANTHI.

Aphis Dianthi, Schrank, *Faun. Boic.* ii. 114, 1213. *Kalt. Mon. Pfl.* i. 42, 29. *Walk. Ann. Nat. Hist. Ser. 2*, v. 391, 85.
Zool. vi. 2218, 2246; vii. *App.* xlv., li., lv., lvi., lvii.; viii. *App.* ciii., civ.

Aphis vulgaris, *Kyber, Germ. Mag.* i.

Aphis Rapæ, *Curt. Journ. Roy. Agric. Soc.* iii. 53, pl. C. f. 1—3.

Aphis dubia, *Curt. Journ. Roy. Agric. Soc.* iii. 54, pl. C. f. 4.

Aphis vastator, *Smce, The Potatoe Plant*, &c., 81.

Aphis Solani? *Kalt. Mon. Pfl.* i. 15, 5.

Dianthaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 477.

Distance between the first and second veins at the tips about thrice that between them at the base; third very much farther from the second at the tip than at the base, much farther from the second at the base than the second is from the first; first fork as near to the second fork as to the third vein, nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein generally a little nearer to the second fork than to the tip of the rib-vein.

Var.? Black, very small: abdomen yellow: feelers a little longer than the body: mouth pale yellow with a black tip: nectaries short: legs pale yellow, moderately long; feet and tips of thighs and of shanks black: wings colourless, much longer than the body; wing-ribs and rib-veins pale yellow; brands and branch-veins pale brown. In the beginning of October on *Thalictrum*.

a—u. England. (In Canada Balsam). From Mr. Walker's collection.

94. APHIS VIBURNI.

Aphis Viburni, *Fabr. Syst. Ent.* 737, 18. *Sp. Ins.* ii. 386, 23. *Mant. Ins.* ii. 316, 28. *Ent. Syst.* iv. 216, 28. *Syst. Rhyn.* 298, 28. *Scop. Ent. Carn.* 396. *Gmel. Ed. Syst. Nat.* i. 2208, 57, *Sulz. Ins.* pl. 11, f. 1, 2. *Stew. El. Nat. Hist.* ii. 111. *Enc. Méth. Ins.* pl. 115, f. 9, *Schrank, Faun. Boic.* ii. 111, 1203. *Sulzer, Hist. Ins.* pl. 11, f. 1, 2. *Kalt. Mon. Pflanz.* i. 78, 56. *Sir Oswald Mosley, Gard. Chron.* i. 684. *Rusticus, Ent. Mag.* i. 218. *Walk. Ann. Nat. Hist. Ser. 2*, vi. 41, 86. *Viburnifex*, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 478.

Distance between the first and second veins at the tips more than twice that between them at the base: third a little nearer to the second at the base than at the tip, farther from the second at the base than the second is from the first fork, nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second; second fork a little nearer to the fourth vein than to the second fork; fourth vein curved, farther from the tip of the rib-vein than from the second fork.

a—z. England. (In Canada Balsam). From Mr. Walker's collection.

95. APHIS XYLOSTEI.

Aphis Xylostei, *Schrank, Faun. Boic.* ii. 1, 107. *Bonnet, Hist. Nat.* i. 7. *Réaumur, Ins.* iii. 286. *Deg. Ins.* iii. 96, 16, pl. 7, f. 8—13. *Gmel. Ed. Syst. Nat.* i. 2210, 74. *Walk. Ann. Nat. Hist. Ser.* 2, vi. 43, 87.

Aphis Lonicæræ, *Fonscol. Ann. Soc. Ent. Fr.* x. 167, 6. *Siebold, Froriep's Notizen*, xii. 85. *Kalt. Mon. Pflanz.* i. 48, 35. *Sir Oswald Mosley, Gard. Chron.* i. 628.

Xylosthaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 479.

The viviparous wingless female. Head in front slightly convex, not notched: feelers a little more than half the length of the body: first and second joints not angular; fourth much shorter than the third; fifth much shorter than the fourth; sixth shorter than the fifth; seventh much more than twice the length of the sixth: tip of the abdomen a little longer than the nectaries, which are as long as one-eighth or one-tenth of the body.

The viviparous winged female. Feelers a little shorter than the body: distance between the first and second wing-veins at the tips much more than twice that between them at the base; third a little farther from the second at the tip than at the base, farther from the second at the base than the second is from the first; first fork as near to the second fork at the tip as to the third vein, as near to the third vein as the third is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein very slightly curved, a little nearer to the second fork than to the tip of the rib-vein.

Var. First fork nearer to the third vein than the third vein is to the second.

a—r. England. (In Canada Balsam). From Mr. Walker's collection.

96. APHIS CERASINA.

Aphis Cerasina, *Walk. Ann. Nat. Hist. Ser.* 2, vi. 43, 88.
England.

97. APHIS CARDUINA.

Aphis Carduina, *Walk. Ann. Nat. Hist. Ser. 2*, vi. 44, 89.

a—p. England. (In Canada Balsam). From Mr. Walker's collection.

98. APHIS JACOBÆÆ.

Aphis Jacobææ, *Schrank, Faun. Boic.* ii. 123, 1242. *Kalt. Mon. Pfl.* i. 68, 49. *Walk. Ann. Nat. Hist. Ser. 2*, vi. 44, 90. *Zool.* viii. *App.* civ.

Distance between the first and second veins at the tips very much more than that between them at the base; third farther from the second at the tip than it is at the base, hardly farther from the second at the base than the second is from the first; first fork at the tip as far from the second fork as from the third vein, nearer to the third vein than the third is to the second; second fork as far from the fourth vein as from the first fork; fourth vein curved near the base, almost straight towards the tip, a little farther from the tip of the rib-vein than from the second fork.

England.

99. APHIS HELICHRYSI.

Aphis Helichrysi, *Kalt. Mon. Pfl.* i. 102, 77. *Walk. Ann. Nat. Hist. Ser. 2*, vi. 45, 91.

Aphis Balsamitæ? *Müll. Zool. Dan. Prod.* 109. 1252. *Gmel. Ed. Syst. Nat.* i. 4, 2210, 71.

Balsamitifex? *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 479.

Distance between the first and second veins at the base about half of that at the tips; third a little farther from the second at the tip than at the base, as far from the second at the base as the second is from the first; first fork at the tip a little nearer to the second fork than to the third vein, a little nearer to the third vein than the third vein is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein curved, nearer to the second fork than to the tip of the rib-vein.

Var. Second fork as near to the fourth vein as to the first fork; fourth vein as near to the tip of the rib-vein as to the second fork.

Var. *The viviparous wingless female*. Green, elliptical: feelers pale yellow, rather less than half the length of the body; tips brown: mouth pale yellow, with a brown tip: nectaries pale yellow, as long as one-twelfth of the body; tips brown: legs pale yellow, moderately long; feet and tips of shanks brown.

The viviparous winged female. Small and black: abdomen very dark green, much broader than the chest; its disk black: feelers black, rather shorter than the body: mouth black: nectaries black, as long as one-sixth of the body: legs black, moderately long; fore-thighs dull yellow at the base: wings colourless, very much longer than the body; wing-ribs pale yellow; brand pale brown; veins brown. From *Achillea Millefolium*, in the beginning of June.

a—n. England. (In Canada Balsam). From Mr. Walker's collection.

100. APHIS TANACETINA.

Aphis Tanacetina, *Walk. Ann. Nat. Hist. Ser. 2*, iv. 46, 92.

Distance between the first and second veins almost twice farther at the tips than at the base; third hardly farther from the second at the tip than at the base, as far from the second at the base as the second is from the first; first fork nearer to the second fork than to the third vein, as near to the third vein as the third is to the second; second fork a little nearer to the first than to the fourth vein: fourth vein slightly curved, a little farther from the tip of the rib-vein than from the second fork.

a—h. England. (In Canada Balsam). From Mr. Walker's collection.

101. APHIS CRATÆGARIA.

Aphis Cratægaria, *Walk. Ann. Nat. Hist. Ser. 2*, vi. 46, 93.

Distance between the first and second veins at the base about half that between them at the tips; third nearer to the second at the base than at the tip, a little nearer to the second at the base than the second is to the first; first fork nearer to the third vein than to the second fork, much nearer to the third vein than the third is to the second; second fork farther from the first fork than from the

fourth vein ; fourth vein curved near the base, straight towards the tip, a little nearer to the second fork than to the tip of the rib-vein.

a—o. England. (In Canada Balsam). From Mr. Walker's collection.

102. APHIS CRATÆGI.

Aphis Cratægi, *Kalt. Mon. Pfl.* i. 66, 47. *Ratz. Forst. Ins.* iii. 217, 5. *Walk. Ann. Nat. Hist. Ser.* 2, vi. 47, 94.

Aphis Pyri? *Fonscol. Ann. Soc. Ent. Fr.* x. 189, 32.

Distance between the first and second veins more than twice farther at the tips than at the base ; third a little farther from the second at the tip than at the base, as far from the second at the base as the second is from the first ; first fork much nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second ; second fork hardly farther from the fourth vein than from the first fork ; fourth vein much curved near the base, almost straight towards the tip, a little nearer to the second fork than to the tip of the rib-vein.

England.

103. APHIS HEDERÆ.

Aphis Hederæ, *Kalt. Mon. Pfl.* i. 89, 65. *Walk. Ann. Nat. Hist. Ser.* vi. 47.

Aphis Illicis, *Kalt. Mon. Pfl.* i. 88, 64.

Distance between the first and second veins more than twice farther at the tips than at the base ; third vein a little farther from the second at the tip than at the base, as far from the second at the base as the second is from the first ; first fork much nearer to the second fork than to the third vein, as near to the third vein as the third is to the second ; second fork a little nearer to the fourth vein than to the first fork ; fourth vein slightly curved, much nearer to the second fork than to the tip of the rib-vein.

The viviparous wingless female. Oval, dull buff or dark red, covered with a white bloom : feelers setaceous, pale yellow, rather more than half the length of the body ; tips brown : mouth pale yellow, with a brown tip : nectaries dark brown, as long as one-tenth of the body : legs pale yellow, moderately long ; feet and tips of the shanks brown. In some instances the feelers are nearly as long as the body, and the tips of the thighs are brown.

The viviparous winged female. Elliptical and dark brown while a pupa: feelers as long as the body: nectaries as long as one-sixth of the body: rudimentary wings pale green. Black, or very dark green, when the wings are unfolded: abdomen dark red: feelers shorter than the body: mouth tawny, with a black tip: nectaries black, as long as one-fifth or one-sixth of the body: legs tawny; posterior thighs, excepting the base, feet and tips of shanks black; legs sometimes black; shanks and fore-thighs, excepting their tips, of a yellow hue: wings colourless, much longer than the body; wing-ribs pale yellow; brand pale brown; veins brown. In the middle of June the wingless insect and the pupa vary much in colour; sometimes they are dull pale yellowish green, sometimes bright red, or dark reddish gray; sometimes the feelers are white, with a black tip to each joint, or black towards the tips, and more than half the length of the body: mouth white, with a black tip: legs white; feet and tips of thighs and of shanks black: oviduct black and short.

a—o. England. (In Canada Balsam). From Mr. Walker's collection.

104. APHIS BERBERIDIS.

Aphis Berberidis, *Kalt. Mon. Pfl.* i. 95, 70. *Walk. Ann. Nat. Hist. Ser. 2*, vi. 118, 96.

Distance between the first and second veins about twice farther at the tips than it is at the base; third a little farther from the second at the tip than it is at the base, as far from the second at the base as the second is from the first; first fork at the tip very much nearer to the second fork than to the third vein, as near to the third vein as the third is to the second; second fork much nearer to the first fork than to the fourth vein; fourth vein much curved, straight near the tip, generally a little nearer to the second fork than to the tip of the rib-vein.

a—v. England. (In Canada Balsam). From Mr. Walker's collection.

105. APHIS NASTURTII.

Aphis Nasturtii, *Kalt. Mon. Pfl.* i. 76, 54. *Walk. Ann. Nat. Hist. Ser. 2*, vi. 119, 97.

Distance between the first and second veins at the tips much more than twice that between them at the base; third much farther

from the second at the tip than at the base, farther from the second at the base than the second is from the first ; first fork nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second ; second fork nearer to the first fork than to the fourth vein ; fourth vein curved, generally nearer to the second fork than to the tip of the rib-vein.

a—z. England. (In Canada Balsam). From Mr. Walker's collection.

106. APHIS HUMULI.

Aphis Humuli, *Schrank, Faun. Boic.* ii. 110, 1199. *Kalt. Mon. Pflanz.* i. 36, 24. *Walk. Ann. Nat. Hist. Ser. 2,* vi. 120, 98. *Letters of Rusticus*, 71. *Plomley, Nat. Hist. Hop-fly.*

Aphis Pruni Mahaleb, *Fonscol. Ann. Soc. Ent. Fr.* x. 175, 15.

Humulifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série,* v. 477.

Distance between the first and second veins at the tips much more than twice that between them at the base ; third a little farther from the second at the tip than at the base, farther from the second at the base than the second is from the first ; first fork a little nearer to the second fork than to the third vein, a little nearer to the third vein than the third is to the second ; second fork much nearer to the fourth vein than to the first fork ; fourth vein much curved near the base, almost straight towards the tip, very much nearer to the second fork than to the tip of the rib-vein.

Var. Pupa. Pale yellow, or red mottled with yellow, and slightly tinged with black : feelers black, yellow towards the base : tip of mouth black : nectaries pale yellow, with black tips, as long as one-fourth of the body : legs very pale yellow ; tips of shanks brown ; feet black. Middle of October.

Var. Third vein wanting towards the tip.

Var. Part of the first fork wanting ; the stump forming an unusually acute angle with the second fork.

Var. First fork wanting towards the tip.

Var. Third vein wanting towards the tip ; the stump forming an unusually acute angle, with the first fork.

a—z. England. (In Canada Balsam). From Mr. Walker's collection.

107. APHIS PRUNINA.

Aphis Prunina, *Walk. Ann. Nat. Hist. Ser. 2*, vi. 120, 99. *Zool.* vi. 2250.

Aphis ———? *Walk. Zool.* vi. 2250.

Distance between the first and second veins at the tips full twice that between them at the base; third a little nearer to the second at the base than at the tip, a little nearer to the second at the base than the second is to the first; first fork generally a little nearer to the second fork than to the third vein, most often a little nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein much curved, a little nearer to the second fork than to the tip of the rib-vein.

a—p. England. (In Canada Balsam). From Mr. Walker's collection.

108. APHIS PRUNARIA.

Aphis Prunaria, *Walk. Ann. Nat. Hist. Ser. 2*, vi. 121, 100. *Zool.* vi. 2250.

Aphis spinarum? *Hartig, Germ. Ent. Zeit.* iii. 370, 13.

Distance between the first and second veins at the tips about thrice that between them at the base; third very much farther from the second at the tip than at the base, as near to the second at the base as the second is to the first; first fork generally nearer to the second fork than to the third vein, much nearer to the third vein than the third is to the second; second fork about as far from the fourth vein as from the first fork; fourth vein long, slightly curved, almost straight towards the tip, much nearer to the second fork than to the tip of the rib-vein.

a—e. England. (In Canada Balsam). From Mr. Walker's collection.

109. APHIS POTENTILLÆ.

Aphis Potentillæ, *Walk. Ann. Nat. Hist. Ser. 2*, iv. 122, 101.

England.

110. APHIS LIGUSTRI.

Aphis Ligustri, Sir Oswald Mosley, *Gard. Chron.* i. 628. *Kalt. Mon. Pflanz.* i. 48, 34.

Var. Lower branch of the first fork of the third vein wanting.

Var. Distance between the first and second veins at the base less than half that between them at the tips; second wanting in one wing, third a little nearer to the second at the tip than at the base, as near to the second at the base as the second is to the first; first fork partly wanting in both wings; fourth vein curved near the base, straight towards the tip, as near to the tip of the rib-vein as to the second fork.

a—g. England. (In Canada Balsam). From Mr. Walker's collection.

111. APHIS ONONIDIS.

Aphis Ononidis, *Kalt. Ent. Zeit. Stett.* vii. 173.

This species is distinguished by its spotted wings, and by its large fore-chest, which is rather broader than the middle-chest.

The viviparous winged female. Small, pale yellow, active, rather short and broad: length of the fore-chest rather more than half its breadth: some pale olive-green irregular stripes along the head and chest, three or four rows of dark gray spots on the abdomen; spots on the middle rows larger and more irregular than those on the side rows: feelers pale yellow, black towards their tips, a little longer than the body: mouth pale yellow, with a black tip, hardly reaching the middle hips: legs dull yellow; tips of the feet darker: wings a little longer than the body, with a brown spot on the tip of each vein; brand brown, including a colourless spot; distance between the first and second veins at the tips nearly twice that between them at the base; third very much nearer to the second at the base than at the tip, much nearer to the second at the base than the second is to the first; first fork nearer to the second fork than to the third vein, hardly nearer to the third vein than the third is to the second; second fork nearer to the first fork than to the fourth vein; fourth vein much curved, nearer to the tip of the rib-vein than to the second fork: rib-vein of the lower wing clouded with brown, with only one branch-vein, which has a brown spot on its tip.

a. England. Presented by F. Walker, Esq.

112. APHIS TANACETARIA?

Aphis Tanacetaria? *Kalt. Mon. Pflan.* i. 19, 8.

The viviparous wingless female. Dark red, oval: front convex: feelers much longer than the body; second joint with an angle on the inside of its tip; fourth much shorter than the third; fifth a little shorter than the fourth; sixth about one fourth of the length of the fifth, not more than one-sixth of the length of the seventh: nectaries about one-fourth of the length of the body: legs long, very stout. From *Tanacetum vulgare* in August.

England.

113. APHIS VICIÆ.

Aphis Viciæ, *Kalt. Mon. Pflan.* i. 20, 9.

Prussia.

114. APHIS RIBICOLA.

Aphis Ribicola, *Kalt. Mon. Pflan.* i. 33, 22.

Distance between the first and second veins at the tips almost twice that between them at the base; third vein very little farther from the second at the tip than at the base, much farther from the second at the base than the second is from the first; first fork as far from the second fork as from the third vein, nearer to the third vein than the third is to the second; second fork nearer to the fourth vein than to the first fork; fourth vein much curved near the base, straight towards the tip, very much farther from the tip of the rib-vein than from the second fork.

a, b. Prussia. Presented by F. Walker, Esq.

115. APHIS CONVULVULI.

Aphis Convolvuli, *Kalt. Mon. Pflan.* i. 40, 27.

Prussia.

116. APHIS CHELIDONII.

Aphis Chelidonii, *Kalt. Mon. Pflan.* i. 41, 28.

Distance between the first and second veins very much farther at the tips than at the base; third vein as near to the second at the

tips as at the base, much farther from the second at the base than the second is from the first; first fork twice farther from the third vein than from the second fork, as far from the third vein as the third is from the second; second fork a little nearer to the first fork than to the fourth vein; fourth vein curved near the base, straight towards the tip, nearer to the second fork than to the tip of the rib-vein.

a, b. Prussia. Presented by F. Walker, Esq.

117. APHIS CAPSELLÆ.

Aphis Capsellæ, *Kalt. Mon. Pfl. i.* 58, 40.

Prussia.

118. APHIS PLANTAGINIS.

Aphis Plantaginis, *Schrank, Faun. Boic. ii.* 106, 1185. *Bonnet, Hist. Nat. i.* 56. *Gmel. Ed. Syst. Nat. i.* 2209, 63. *Stew. El. Nat. Hist. ii.* 111. *Kalt. Mon. Pfl. i.* 59, 41.

Aphis Dauci, *Fabr. Syst. Ent.* 737, 23. *Sp. Ins. ii.* 387, 29. *Mant. Ins. ii.* 316, 34. *Ent. Syst. iv.* 217, 34. *Syst. Rhyn.* 299, 34. *Gmel. Ed. Syst. Nat. i.* 2204, 45. *Schrank, Faun. Boic. ii.* 1, 110, 1200. *Stew. El. Nat. Hist. ii.* 110. *Turt. Syst. Nat. ii.* 706.

Plantaginifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série, v.* 478.

Europe.

119. APHIS SCABIOSÆ.

Aphis Scabiosæ, *Scop. Ent. Carn.* 138, 10, 405. *Gmel. Ed. Syst. Nat. i.* 2210, 66. *Schrank, Faun. Boic. ii.* 105, 1082. *Stew. El. Nat. Hist. ii.* 111. *Fonscol. Ann. Soc. Ent. Fr. x.* 179, 19. *Kalt. Mon. Pfl. i.* 60, 42.

Psorodaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série, v.* 478.

Europe.

120. APHIS SEDI.

Aphis Sedi, *Kalt. Mon. Pfl. i.* 63, 44.

Distance between the first and second veins at the base full half that between them at the tips; third vein a little nearer to the

second at the base than at the tip, as near to the second at the base as the second is to the first; first fork much nearer to the second fork than to the third vein, hardly nearer to the third vein than the third is to the second; second fork as near to the first fork as to the fourth vein; fourth vein curved along the whole length, nearer to the second fork than to the tip of the rib-vein.

a—s. England. (In Canada Balsam). From Mr. Walker's collection.

121. APHIS RHAMNI.

Aphis Rhamni, *Fonscol. Ann. Soc. Ent. Fr.* x. 177, 17.
Europe.

122. APHIS FRANGULÆ.

Aphis Rhamni, *Kalt. Mon. Pfl.* i. 64, 45.
Aphis Frangulæ, *Kalt. Verh. d. n. Ver.* ii. 11.
Europe.

123. APHIS EPILOBII.

Aphis Epilobii, *Kalt. Mon. Pfl.* i. 64, 46.

Distance between the first and second veins at the tips full thrice that between them at the base; third a little farther from the second at the tip than at the base, almost twice farther from the second at the base than the second is from the first; first fork nearer to the second fork than to the third vein, as far from the third vein as the third is from the second; second fork farther from the first fork than from the fourth vein; fourth vein rather long, curved near the base, almost straight towards the tip, nearer to the second fork than to the tip of the rib-vein.

a—s. England. (In Canada Balsam). From Mr. Walker's collection.

124. APHIS GROSSULARIÆ.

Aphis Grossulariæ, *Kalt. Mon. Pfl.* i. 67, 48.
Europe.

125. APHIS RANUNCULI.

Aphis Ranunculi, *Kalt. Mon. Pflan.* i. 69, 50.

Distance between the first and second veins thrice farther at the tips than at the base; third vein much nearer to the second at the base than at the tip, farther from the second at the base than the second is from the first; first fork very much nearer to the second fork than to the third vein, as far from the third vein as the third is from the second; second fork as far from the first as from the fourth vein; fourth vein curved, a little nearer to the second fork than to the tip of the rib-vein.

Var. Second fork a little nearer to the first than to the fourth vein.

Var. Second vein forked near the tip.

a—d. Prussia. Presented by F. Walker, Esq.

126. APHIS NEPETÆ.

Aphis Nepetæ, *Kalt. Mon. Pflan.* i. 77, 55.

Distance between the first and second veins at the tips more than thrice farther than that at the base; third vein a little nearer to the second at the base than at the tip, much farther from the second at the base than the second is from the first; first fork very much nearer to the second fork than to the third vein, hardly nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein curved near the base, straight towards the tip, twice farther from the tip of the rib-vein than from the second fork.

a—i. Prussia. Presented by F. Walker, Esq.

127. APHIS EUPHORBIAE.

Aphis Euphorbiæ, *Kalt. Mon. Pflan.* i. 94, 69.

Aphis Euphorbiæ? *Walk. Zool.* vii. *App.* xliii.

England, Prussia.

128. APHIS MYRICÆ.

Aphis Myricæ, *Kalt. Mon. Pflan.* i. 96, 71.

The viviparous wingless female. Yellow or orange, flat, very hairy, adorned with four rows of large more or less transverse greenish brown spots, slightly increasing in breadth from the head to the tip of the abdomen, which is very slightly convex and not at all lengthened; between the inner pair and the outer pair of the rows of spots are some dots of the same colour: two little teeth on the front: feelers much less than half the length of the body: nectaries dingy yellow with brown tips, very near the tip of the abdomen, one-eighth or one-tenth of the length of the body: legs short.

The viviparous winged female. Like the wingless female, but not hairy: feelers pale yellow, brown towards the tips, much shorter than the body; fourth joint little more than half the length of the third; fifth a little shorter than the fourth; sixth much shorter than the fifth; seventh extremely short: legs pale yellow; feet and tips of the shanks brown: wings colourless, short, hardly extending beyond the abdomen; brand pale yellow, brown at the base and at the tip; veins blackish.

Distance between the first and second veins at the tips almost thrice that between them at the base; third vein almost twice farther from the second at the tip than at the base, nearer to the second at the base than the second is to the first; first fork almost twice farther from the third vein than from the second fork, very much farther from the third vein than the third is from the second; second fork nearer to the first fork than to the fourth vein; fourth vein slightly curved, a little nearer to the tip of the rib-vein than to the second fork.

a—c. England. Presented by F. Walker, Esq.

129. APHIS VITELLINÆ.

Aphis Vitellinæ, Schrank, *Faun. Boic.* ii. 103, 1178. *Kalt. Mon. Pfl.* i. 97, 72. *Ratz. Forst. Ins.* iii. 217, 9.
Vitellinifex, Amyot, *Ann. Soc. Ent. Fr.* 2me Série, v. 479.
 Prussia.

130. APHIS ERYSIMI.

Aphis Erysimi, *Kalt. Mon. Pfl.* i. 99, 75.
 Europe.

131. APHIS SALICETI.

Aphis Saliceti, *Kalt. Mon. Pfl. i.* 103, 78. *Ratz. Forst. Ins. iii.* 217, 11.

Aphis Salicis, *Fonscol. Ann. Soc. Ent. x.* 176, 16.

Salicitifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série, v.* 479.

Distance between the first and second veins at the tips much more than twice that between them at the base; third much farther from the second at the tip than it is at the base, much farther from the second at the base than the second is from the first; first fork full twice farther from the third vein than from the first fork, a little nearer to the third vein than the third is to the second; second fork much nearer to the first fork than to the fourth vein; fourth curved near the base, almost straight towards the tip, a little nearer to the second fork than to the tip of the rib-vein.

a—r. England. (In Canada Balsam). From Mr. Walker's collection.

132. APHIS PIMPINELLÆ.

Aphis Pimpinellæ, *Kalt. Mon. Pfl. i.* 105, 80.
Prussia.

133. APHIS AMERINÆ.

Aphis Amerinæ, *Hartig, Germ. Ent. Zeitt. iii.* 369.
Germany.

134. APHIS ANTHRISCI.

Aphis Anthrisci, *Kalt. Mon. Pfl. i.* 112, 86.
Prussia.

135. APHIS CARDUI.

Aphis Cardui, *Linn. Syst. Nat. ii.* 735, 17. *Faun. Suec.* 988. *Fabr. Sp. Ins. ii.* 385, 13. *Mant. Ins. ii.* 315, 15. *Ent. Syst. iv.* 214, 16. *Syst. Rhyn.* 296, 16. *Gmel. Ed. Syst. Nat. i.* 2205, 17. *Rossi, Faun. Etrusc.* 261, 1375. *Berk. Syn. i.* 120. *Stew. El. Nat. Hist. ii.* 110. *Turt. Syst. Nat. ii.* 703. *Fonscol. Ann. Soc. Ent. Fr. x.* *Kalt. Mon. Pfl. i.* 115, 89.

Aphis Onopordi, *Schrank, Faun. Boic. ii.* 121, 1236.

Scolymaphis? *Amyot, Ann. Soc. Ent. Fr. 2me Série, v.* 479.
Europe.

136. APHIS NERII.

Aphis Nerii, *Fonscol. Ann. Soc. Ent. Fr.* x. 179, 20. *Kalt. Mon. Pfl.* i. 118, 91.

Europe.

137. APHIS BETULARIA.

Aphis Betularia, *Kalt. Mon. Pfl.* i. 119, 93. *Ratz. Forst. Ins.* iii. 218, 14.

Aphis tuberculata, *Heyden, Mus. Senkenb.* ii. 296.

Oncodaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 479.

Germany.

138. APHIS SALICTI.

Aphis Salicti, *Schrank, Faun. Boic.* ii. 103, 1177. *Kalt. Mon. Pfl.* i. 121, 93. *Ratz. Forst. Ins.* iii. 218, 17.

Germany.

139. APHIS CAMELLIÆ.

Aphis Camelliæ, *Kalt. Mon. Pfl.* i. 122, 94.

Distance between the first and second veins at the tips more than twice farther than at the base; third vein much farther from the second at the tip than at the base, as near to the second at the base as the second is to the first; first fork nearer to the third vein than the third vein is to the second; second fork extremely short or wanting; fourth vein slightly curved, almost straight towards the tip, nearer to the second fork than to the tip of the rib-vein; brand long, very dark brown.

a—c. Prussia. Presented by F. Walker, Esq.

140. APHIS PRUNICOLA.

Aphis Prunicola, *Kalt. Mon. Pfl.* i. 122, 95.

Aphis Cerasi, *Schrank, Faun. Boic.* ii. 115, 1218.

Germany.

141. APHIS TRAGOPOGONIS.

Aphis Tragopogonis, *Kalt. Mon. Pfl.* i. 124, 96.

The viviparous wingless female. Black, shining, convex, increasing in breadth from the head to near the tip of the abdomen; segments very distinct: feelers much shorter than the body; first and second joints short and stout, with no notch on the inner side; fourth joint shorter than the third, longer than the fifth; sixth rather broad, shorter than the fifth; seventh very slender, as long as the third, which is mostly tawny: sides of the fore-chest white beneath: nectaries about one-twelfth of the length of the body: shanks yellow; thighs yellow towards the base.

The viviparous winged female. Dull dark red while a pupa, with dull pale green rudiments of wings: feelers nearly as long as the body when the wings are unfolded, rather thick, excepting the seventh joint: wings colourless; rib-veins yellow towards the base; brands grayish; veins black.

Distance between the first and second veins twice farther at the tips than at the base; third vein a little nearer to the second at the base than at the tip, much nearer to the second at the base than the second is to the first; first fork as far from the second fork as from the third vein, farther from the third vein than the third is from the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein curved near the base, almost straight towards the tip, a little nearer to the second fork than to the tip of the rib-vein.

a—f. Prussia. Presented by F. Walker, Esq.

142. APHIS LIGUSTICI.

Aphis Ligustici, *Fabr. Sp. Ins.* ii. 389, 44. *Mant. Ins.* ii. 317, 49. *Ent. Syst.* iv. 219, 46. *Syst. Rhyn.* 301, 46. *Gmel. Ed. Syst. Nat.* i. 4, 2203, 40. *Stew. El. Nat. Hist.* ii. 110. *Kalt. Mon. Pfl.* i. 140, 107.

Norway.

143. APHIS VITIS.

Aphis Vitis, *Scopoli*, *Ent. Carn.* 398. *Fabr. Sp. Ins.* ii. 390, 49.
Mant. Ins. ii. 317, 54. *Ent. Syst.* iv. 220, 54. *Syst. Rhyn.*
 302, 54. *Gmel. Ed. Syst. Nat.* i. 2207, 56. *Turt. Syst. Nat.*
 ii. 708. *Kalt. Mon. Pfl.* 141, 109.

South of Europe.

144. APHIS CNICI.

Aphis Cnici, *Schrank*, *Faun. Boic.* ii. 122, 1239. *Kalt. Mon. Pfl.*
 i. 142, 112.

Germany.

145. APHIS SANGUISORBÆ.

Aphis Sanguisorbæ, *Schrank*, *Faun. Boic.* ii. 106, 1187. *Kalt.*
Mon. Pfl. i. 143, 114.

Germany.

146. APHIS VERBASCI.

Aphis Verbasci, *Schrank*, *Faun. Boic.* ii. 107, 1192. *Fonscol. Ann.*
Soc. Ent. Fr. x. 181, 24. *Kalt. Mon. Pfl.* i. 143, 115.

Europe.

147. APHIS NAPELLI.

Aphis Napelli, *Schrank*, *Faun. Boic.* 118, 1226. *Kalt. Mon. Pfl.*
 i. 143, 117.

Germany.

148. APHIS TRUNCATA.

Aphis truncata, *Hausmann*, *Illig. Mag.* i. 443. *Kalt. Mon. Pfl.*
 i. 145, 119.

Germany.

149. APHIS LEUCANTHEMI.

Aphis Leucanthemi, *Scopoli, Ent. Carn.* 138, 404. *Gmel. Ed. Syst. Nat.* i. 4, 2210, 65. *Stew. El. Nat. Hist.* ii. 111.

a—d. England. (In Canada Balsam). Presented by F. Walker, Esq.

150. APHIS CICHORII.

Aphis Cichorii, *Dutrochet, Ann. Sci. Nat.* xxx. 204, 1833.
France.

151. APHIS DISCOLOR.

Aphis discolor, *Burm. Handb. Ent.* ii. 94, 1.
Germany.

152. APHIS ZEÆ.

Aphis Zeæ, *Bonafous, Ann. Soc. Ent. Fr.* iv. 1835, 658, pl. 20, B.
f. 1, 2.
France.

153. APHIS MAYERI.

Aphis Mayeri, *Gmel. Ed. Syst. Nat.* i. 2211, 75.
Aphis, &c., *Mayer, Abb. Boehm. Ges.* iv. 1833.
Bohemia.

154. APHIS ———?

Aphis Salias, *Harris, Ins. Mass.* 190.
United States.

155. APHIS ———?

Aphis Populea, *Bouché, Ent. Zeit. Stett.* iv. 82.
Germany.

156. APHIS NERVOSA.

Aphis nervosa, *Zett. Ins. Lapp.* i. 2, 311, 8.
Lapland.

157. APHIS TENUINERVIS.

Aphis tenuinervis, *Zett. Ins. Lapp.* i. 2, 310, 9.
Lapland.

158. APHIS FUSCIPENNIS.

Aphis fuscipennis, *Zett. Ins. Lapp.* i. 2, 311, 11.
Lapland.

159. APHIS CYNOGLOSSI.

Aphis Cynoglossi, *Walk. Zool.* vi. 2217.

Distance between the first and second veins at the tips about twice that between them at the base; third much nearer to the second at the base than at the tip, as near to the second at the base as the second is to the first; first fork at the tip much nearer to the second fork than to the third vein, a little nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein curved near the base, straight towards the tip, nearer to the second fork than to the tip of the rib-vein.

a. England. Presented by F. Walker, Esq.

160. APHIS SOCIA.

Aphis socia, *Walk. Zool.* vi. 2217.

Distance between the first and second veins at the tips about thrice that between them at the base; third a little farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first; first fork at the base very much nearer to the second fork than to the third vein, as near to the third vein as the third is to the second; second fork nearer to the first fork than to the tip of the fourth vein; fourth vein much curved, a little nearer to the second fork than to the tip of the rib-vein.

a. England. Presented by F. Walker, Esq.

161. APHIS PARTICEPS.

Aphis particeps, *Walk. Zool.* vi. 2217.

a—d. England. Presented by F. Walker, Esq.

162. APHIS SODALIS.

Aphis sodalis, *Walk. Zool.* vi. 2218.

a—d. England. Presented by F. Walker, Esq.

163. APHIS CONSORS.

Aphis consors, *Walk. Zool.* vi. 2218.

Distance between the first and second veins at the tips more than thrice that between them at the base; third very much farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first; first fork a little nearer to the second fork than to the third vein; hardly nearer to the third vein than the third is to the second; second fork nearer to the fourth vein than to the first fork; fourth vein much curved, nearer to the second fork than to the tip of the rib-vein.

a, b. England. Presented by F. Walker, Esq.

164. APHIS PULVERA.

Aphis pulvera, *Walk. Zool.* vi. 2218.

a—d. England. Presented by F. Walker, Esq.

165. APHIS AMICA.

Aphis amica, *Walk. Zool.* vi. 2218.

a—d. England. Presented by F. Walker, Esq.

166. APHIS COLLEGA.

Aphis collega, *Walk. Zool.* vi. 2218.

a, b. England. Presented by F. Walker, Esq.

167. APHIS COMMODA.

Aphis commoda, *Walk. Zool.* vi. 2219.

Distance between the first and second veins full thrice farther at the tips than at the base; third a little nearer to the second at the base than at the tip, much nearer to the second at the base than the second is to the first; first fork a little nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second; second fork a little farther from the fourth vein than from the first fork; fourth vein curved, straight towards the tip, nearer to the second fork than to the tip of the rib-vein.

Var. First fork a little farther from the second fork than from the third vein; second fork a little nearer to the fourth vein than to the first fork.

a. England. Presented by F. Walker, Esq.

168. APHIS FREQUENS.

Aphis frequens, *Walk. Zool.* vi. 2219.

a—t. England. Presented by F. Walker, Esq.

169. APHIS LYCOPSIDIS.

Aphis Lycopsidis, *Walk. Zool.* vi. 2219.

a—d. England. Presented by F. Walker, Esq.

170. APHIS CONSUETA.

Aphis consueta, *Walk. Zool.* vi. 2219.

a, b. England. Presented by F. Walker, Esq.

171. APHIS ADJUTA.

Aphis adjuta, *Walk. Zool.* vi. 2220.

a. England. Presented by F. Walker, Esq.

172. APHIS CONJUNCTA.

Aphis conjuncta, *Walk. Zool.* vi. 2220.

a, b. England. Presented by F. Walker, Esq

173. APHIS BASALIS.

Aphis basalis, *Walk. Zool.* vi. 2220.

a. England. Presented by F. Walker, Esq.

174. APHIS FAMILIARIS.

Aphis familiaris, *Walk. Zool.* vi. 2220.

a. England. Presented by F. Walker, Esq.

175. APHIS ADJUVANS.

Aphis adjuvans, *Walk. Zool.* vi. 2220.

a—d. England. Presented by F. Walker, Esq.

176. APHIS ADSCITA.

Aphis adscita, *Walk. Zool.* vi. 2220.

Distance between the first and second veins thrice farther at the tips than at the base ; third a little farther from the second at the base than the second is from the first ; first fork nearer to the second fork than to the third vein, hardly nearer to the third vein than the third is to the second ; second fork a little nearer to the first fork than to the fourth vein ; fourth vein much curved, a little nearer to the second fork than to the tip of the rib-vein.

Var. Second fork a little nearer to the fourth vein than to the first fork.

Var. Second fork very short.

a—c. England. Presented by F. Walker, Esq.

177. APHIS SUFFRAGANS.

Aphis suffragans, *Walk. Zool.* vi. 2221.

Distance between the first and second veins full twice farther at the tips than at the base; third vein farther from the second at the tip than at the base, a little farther from the second at the base than the second is from the first; first fork nearer to the second fork than to the third vein, hardly nearer to the third vein than the third is to the second; second fork more or less nearer to the first fork than to the fourth vein; fourth vein much curved near the base, straight towards the tip, much nearer to the second fork than to the tip of the rib-vein.

a, b. England. Presented by F. Walker, Esq.

178. APHIS PERSOLA.

Aphis persola, *Walk. Zool.* vi. 2246.

a. England. Presented by F. Walker, Esq.

179. APHIS NIGRO-RUFA.

Aphis nigro-rufa, *Walk. Zool.* vi. 2247.

a. England. Presented by F. Walker, Esq.

180. APHIS SEJUNCTA.

Aphis sejuncta, *Walk. Zool.* vi. 2247.

a. England. Presented by F. Walker, Esq.

181. APHIS ASPERULÆ.

Aphis Asperulæ, *Walk. Zool.* vi. 2248.

Distance between the first and second veins about twice farther at the tips than at the base; third farther from the second at the tip than at the base, farther from the second at the base than the second is from the first; first fork nearer to the second than to the third vein, nearer to the third vein than the third is to the second;

second fork as far from the first fork as from the fourth vein ; fourth vein slightly curved, almost straight towards the tip, a little farther from the tip of the rib-vein than from the second fork.

Var. Distance between the first and second veins much more than twice farther at the tips than at the base ; third almost twice farther from the second than the second is from the first.

a, b. England. Presented by F. Walker, Esq.

182. APHIS GLECHOMÆ.

Aphis Glechomæ, *Walk. Zool.* vi. 2247.

England.

183. APHIS LIMONII.

Aphis Sonchi, Var. ? *Walk. Zool.* vi. 2248.

a. England. Presented by F. Walker, Esq.

184. APHIS VERONICÆ.

Aphis Veronicæ, *Walk. Zool.* vi. 2248.

Distance between the first and second veins at the tips nearly thrice farther than at the base ; third a little farther from the second at the tip than at the base, nearly twice farther from the second at the base than the second is from the first ; first fork at the tip as far from the second fork as from the third vein, nearer to the third vein than the third is to the second ; second fork nearer to the fourth vein than the first fork ; fourth vein slightly curved near the base, straight towards the tip, much nearer to the second fork than to the tip of the rib-vein.

a—f. England. (In Canada Balsam). Presented by F. Walker, Esq.

185. APHIS POLYGONI.

Aphis Polygoni, *Walk. Zool.* vi. 2249.

a—j. England. Presented by J. Hardy, Esq.

186. APHIS SIMILIS.

Aphis similis, *Walk. Zool.* vi. 2249.
England.

187. APHIS DEPOSITA.

Aphis ——— ? *Walk. Zool.* vi. 2250.

Distance between the first and second veins much more than twice farther at the tips than at the base ; third farther from the second at the tip than at the base, as near to the second at the base as the second is to the first ; first fork much nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second ; second fork nearer to the first fork than to the fourth vein ; fourth vein much curved, straight near the tip, about as far from the tip of the rib-vein as from the second fork.

a, b. England. Presented by F. Walker, Esq.

188. APHIS DIVERSA.

Aphis diversa, *Walk. Zool.* vi. 2251.
England.

189. APHIS DISPAR.

Aphis dispar, *Walk. Zool.* vi. 2251.
England.

190. APHIS LATERALIS.

Aphis lateralis, *Walk. Zool.* vi. 2251.
England.

191. APHIS EXTRANEA.

Aphis extranea, *Walk. Zool.* vii. *App.* xxxi.
England.

192. APHIS CONTERMINA.

Aphis contermina, *Walk. Zool.* vii. *App.* xxxi.
England.

193. APHIS REDUNDANS.

Aphis redundans, *Walk. Zool. vii. App. xxxii.*
England.

194. APHIS CERTA.

Aphis certa, *Walk. Zool. vii. App. xxxii.*
England.

195. APHIS INSESSA.

Aphis inessa, *Walk. Zool. vii. App. xxxii.*
England.

196. APHIS CADIVA.

Aphis cadiva, *Walk. Zool. vii. App. xxxii.*
England,

197. APHIS AUCTA.

Aphis aucta, *Walk. Zool. vii. App. xxxiii.*
England.

198. APHIS ADDITA.

Aphis addita, *Walk. Zool. vii. App. xxxiii.*
England.

199. APHIS ADDUCTA.

Aphis adducta, *Walk. Zool. vii. App. xxxiv.*
England.

200. APHIS DISSITA.

Aphis dissita, *Walk. Zool. vii. App. xxxiv.*

Distance between the first and second veins about thrice farther at the tips than at the base ; third vein a little farther from the second at the tip than at the base, much farther at the base from the second than the second is from the first ; first fork nearer to the second fork than to the third vein, hardly nearer to the third vein than the third is to the second ; second fork much nearer to the fourth vein than to the first fork ; fourth vein much curved near the base, almost straight towards the tip, twice farther from the tip of the rib-vein than from the second fork.

Var. Third vein with a fork near its tip.

Var. Third vein not farther from the second at the tip than at the base, twice farther at the base from the second than the second is from the first.

a, b. England. Presented by F. Walker, Esq.

201. APHIS TRIBULIS.

Aphis tribulis, *Walk. Zool. vii. App. xxxiv.*
England.

202. APHIS TRANSLATA.

Aphis translata, *Walk. Zool. vii. App. xxxv.*
England.

203. APHIS INDUCTA.

Aphis inducta, *Walk. Zool. vii. App. xxxv.*
England.

204. APHIS INCUMBENS.

Aphis incumbens, *Walk. Zool. vii. App. xxxv.*
a. England. Presented by F. Walker, Esq.

205. APHIS IMPACTA.

Aphis impacta, *Walk. Zool. vii. App. xxxv., xlvii.*
England.

206. APHIS CONVIVA.

Aphis conviva, *Walk. Zool. vii. App. xxxvi.*
England.

207. APHIS NOCIVA.

Aphis nociva, *Walk. Zool. vii. App. xxxvi.*

Distance between the first and second veins full twice farther at the tips than at the base; third as near to the second at the tip as at the base, farther from the second at the base than the second is from the first; first fork nearer to the second fork than to the third vein, hardly nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein much curved near the base, almost straight towards the tip, a little farther from the tip of the rib-vein than from the second fork.

a, b. England. Presented by F. Walker, Esq.

208. APHIS CONSONA.

Aphis consona, *Walk. Zool. vii. App. xxxvi.*
England.

209. APHIS BELLULA.

Aphis bellula, *Walk. Zool. vii. App. xxxvi.*
England.

210. APHIS TRANSMUTATA.

Aphis transmutata, *Walk. Zool. vii. App. xxxvii.*

Distance between the first and second veins more than twice farther at the tips than at the base; third vein farther from the second at the tip than at the base, as near to the second at the base as the second is to the first; first fork generally nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein curved, straight near the tip, a little nearer to the second fork than to the tip of the rib-vein.

a—e. England. Presented by F. Walker, Esq.

211. APHIS CONVECTA.

Aphis convecta, *Walk. Zool.* vii. *App.* xxxvii.
England.

212. APHIS PERSORBENS.

Aphis persorbens, *Walk. Zool.* vii. *App.* xxxvii.
England.

213. APHIS INTERNATA.

Aphis internata, *Walk. Zool.* vii. *App.* xxxvii.
England.

214. APHIS TRANSPOSITA.

Aphis transposita, *Walk. Zool.* vi. *App.* xxxvii.
England.

215. APHIS DETRACTA.

Aphis detracta, *Walk. Zool.* vii. *App.* xxxviii.
England.

216. APHIS EGRESSA.

Aphis egressa, *Walk. Zool.* vii. *App.* xxxviii.
England.

217. APHIS DEVECTA.

Aphis devecta, *Walk. Zool.* vii. *App.* xxxviii.
England.

218. APHIS INSERTA.

Aphis inserta, *Walk. Zool.* vii. *App.* xxxix.
England.

219. APHIS NUTRICATA.

Aphis nutricata, *Walk. Zool. vii. App. xxxix.*
England.

220. APHIS MACTATA.

Aphis mactata, *Walk. Zool. vii. App. xxxix.*
England.

221. APHIS INSITA.

Aphis insita, *Walk. Zool. vii. App. xxxix.*
England.

222. APHIS ASSIDUA.

Aphis assidua, *Walk. Zool. vii. App. xl.*
England.

223. APHIS INCULTA.

Aphis inculta, *Walk. Zool. vii. App. xliii.*
England.

224. APHIS ROBUSTA.

Aphis robusta, *Walk. Zool. vii. App. xliii.*
England.

225. APHIS ALTERNA.

Aphis alterna, *Walk. Zool. vii. App. xliii.*
England.

226. APHIS SECUNDA.

Aphis secunda, *Walk. Zool. vii. App. xliv.*
England.

227. APHIS TRANSIENS.

Aphis transiens, *Walk. Zool. vii. App. xlv.*
England.

228. APHIS ILLATA.

Aphis illata, *Walk. Zool. vii. App. xliii.*
England.

229. APHIS RELATA.

Aphis relata, *Walk. Zool. vii. App. xlv.*
England.

230. APHIS TERTIA.

Aphis tertia, *Walk. Zool. vii. App. xlv.*
England.

231. APHIS INDECISA.

Aphis indecisa, *Walk. Zool. vii. App. xlv.*
England.

232. APHIS INCERTA.

Aphis incerta, *Walk. Zool. vii. App. xlv.*
England.

233. APHIS INULÆ.

Aphis Inulæ, *Walk. Zool. vii. App. xlv.*

The viviparous winged female. Wings colourless ; veins pale ; brands dusky towards the tips ; distance between the first and second veins at the tips about twice that at the base ; third a little nearer to the second at the base than at the tip, a little farther from the second at the base than the second is from the first ; first fork as near to the third vein as to the second fork, much nearer to the

third vein than the third is to the second ; second fork as near to the fourth vein as to the first fork ; fourth vein much curved, very little nearer to the tip of the rib-vein than to the second fork.

Var. First fork much nearer to the third vein than to the second fork ; second fork nearer to the fourth vein than to the first fork.

England.

234. *APHIS CONSPERSA*.

Aphis conspersa, *Walk. Zool. vii. App. xlvi.*

England.

235. *APHIS CONFUSA*.

Aphis confusa, *Walk. Zool. vii. App. xlvi.*

England.

236. *APHIS INDISTINCTA*.

Aphis indistincta, *Walk. Zool. vii. App. xlvi.*

England.

237. *APHIS ADJECTA*.

Aphis adjecta, *Walk. Zool. vii. App. xlvi.*

a. England. Presented by F. Walker, Esq.

238. *APHIS VACILLANS*.

Aphis vacillans, *Walk. Zool. vii. App. xlvii.*

England.

239. *APHIS RUFULA*.

Aphis rufula, *Walk. Zool. vii. App. xlvii.*

a—c. England. Presented by F. Walker, Esq.

240. APHIS PICTA.

Aphis picta, *Walk. Zool. vii. App. xlvii.*

a—d. England. Presented by J. Hardy, Esq.

241. APHIS IMPACTA.

Aphis impacta, *Walk. Zool. vii. App. xlviii.*

Distance between the first and second veins at the base more than twice that between them at the tips; third farther from the second at the tip than at the base, farther from the second at the base than the second is from the first; first fork a little nearer to the second than to the third vein, nearer to the third vein than the third is to the second; second fork generally as near to the fourth vein as to the first fork; fourth vein much curved near the base, almost straight towards the tip, much nearer to the second fork than to the tip of the rib-vein.

a—c. England. Presented by J. Hardy, Esq.

242. APHIS EXUL.

Aphis exul, *Walk. Zool. vii. App. xlviii.*

Distance between the first and second veins at the tips much more than twice farther than at the base; third much farther from the second at the tip than at the base, as near to the second at the base as the second is to the first; first fork much nearer to the second fork than to the third vein, very little nearer to the third vein than the third is to the second; second fork a little nearer to the first fork than to the fourth vein; fourth vein more or less curved, much nearer to the second fork than to the tip of the rib-vein.

a—f. England. Presented by F. Walker, Esq.

243. APHIS ADVENA.

Aphis advena, *Walk. Zool. vii. App. xlviii.*

England.

244. APHIS QUÆRENS.

Aphis quærens, *Walk. Zool. vii. App. xlviii.*

Distance between the first and second veins at the tips about twice that between them at the base ; third a little farther from the second at the tip than at the base, much farther from the second at the base than the second is from the first ; first fork nearer to the third vein than to the second fork, much nearer to the third vein than the third is to the second ; second fork nearer to the fourth vein than to the first fork ; fourth vein much curved near the base, almost straight towards the tip, a little nearer to the second fork than to the tip of the rib-vein.

a. England. Presented by F. Walker, Esq.

245. APHIS ASSUETA.

Aphis assueta, *Walk. Zool. vii. App. xlix.*

England.

246. APHIS BARTSIÆ.

Aphis Bartsiæ, *Walk. Zool. vii. App. xlix.*

a—j. England. Presented by F. Walker, Esq.

247. APHIS TENUIOR.

Aphis tenuior, *Walk. Zool. vii. App. xlix.*

England.

248. APHIS GNAPHALII.

Aphis Gnaphalii, *Walk. Zool. vii. App. l.*

a. England. Presented by F. Walker, Esq.

249. APHIS ATOMARIA.

Aphis atomaria, *Walk. Zool. vii. App. l.*

a. England. Presented by F. Walker, Esq.

250. APHIS DERELICTA.

Aphis derelicta, *Walk. Zool. vii. App. l.*

Distance between the first and second veins more than twice farther at the tips than at the base ; third vein a little nearer to the second at the base than at the tip, nearer to the second at the base than the second is to the first ; first fork much nearer to the second fork than to the third vein, not nearer to the third vein than the third is to the second ; second fork sometimes nearer to the fourth vein than to the first fork ; fourth vein curved near the base, almost straight towards the tip, much nearer to the second fork than to the tip of the rib-vein.

a—e. England. Presented by F. Walker, Esq.

251. APHIS EUPHRASIÆ.

Aphis Euphrasiæ, *Zool. vii. App. li.*

a. England. Presented by F. Walker, Esq.

252. APHIS TINCTA.

Aphis tincta, *Walk. Zool. vii. App. li.*

England.

253. APHIS PRÆTERITA.

Aphis præterita, *Walk. Zool. vii. App. lii.*

England.

254. APHIS POLLINOSA.

Aphis pollinosa, *Walk. Zool. vii. App. lii.*

England.

255. APHIS DESPECTA.

Aphis despecta, *Walk. Zool. vii. App. liii.*

England.

256. APHIS EPILOBIINA.

Aphis Epilobiina, *Walk. Zool. vii. App. liii.*

Distance between the first and second veins more than twice farther at the tips than at the base; third a little farther from the second at the tip than at the base, farther from the second at the base than the second is from the first; first fork nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second; second fork a little nearer to the first than to the fourth vein; fourth vein curved, a little nearer to the second fork than to the tip of the rib-vein.

Var. ? Black: abdomen green, with a row of black dots on each side: feelers fully as long as the body: mouth pale yellow, with a black tip: nectaries pale green, about one-sixth of the length of the body: legs pale yellow, moderately long; feet, knees, and thighs from the middle to the tips black: wings colourless, much longer than the body; wing-ribs and rib-veins pale yellow; wing-brands pale brown; the other veins brown.

a—z. England. (In Canada Balsam). From Mr. Walker's collection.

257. APHIS CONSUMPTA.

Aphis consumpta, *Walk. Zool. vii. App. liv.*
England.

258. APHIS PILOSA.

Aphis pilosa, *Walk. Zool. vii. App. liv.*
England.

259. APHIS FLAVEOLA.

Aphis flaveola, *Walk. Zool. vii. App. lv.*
England.

260. APHIS CHRYSANTHEMI.

Aphis Chrysanthemi, *Walk. Zool. vii. App. lvi.*

Distance between the first and second veins about twice farther at the tips than at the base; third farther from the second at the tip than at the base, not farther from the second at the base than the second is from the first; first fork nearer to the second fork at the tip than to the third vein, hardly nearer to the third vein than the third is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein curved, almost straight towards the tip, much nearer to the second fork than to the tip of the rib-vein.

a, b. England. Presented by F. Walker, Esq.

261. APHIS INTRODUCTA.

Aphis introducta, *Walk. Zool. vii. App. lvii.*

England.

262. APHIS APPOSITA.

Aphis apposita, *Walk. Zool. viii. App. ciii.*

England.

263. APHIS LATA.

Aphis lata, *Walk. Zool. viii. App. ciii.*

England.

264. APHIS DIMINUTA.

Aphis diminuta, *Walk. Zool. viii. App. ciii.*

England.

265. APHIS CERASICOLENS.

Aphis cerasicolens, *Fitch, The Senate, No. 30, 65.*

New York.

266. APHIS ASCLEPIADIS.

Aphis Asclepiadis, *Fitch, The Senate, No. 30, 65,*

New York.

267. APHIS CORNIFOLIÆ.

Aphis cornifoliæ, *Fitch, The Senate*, No. 30, 65.
New York.

268. APHIS CRATÆGIFOLIÆ.

Aphis cratægifoliæ, *Fitch, The Senate*, No. 30, 66.
New York.

269. APHIS BETULÆCOLENS.

Aphis betulæcolens, *Fitch, The Senate*, No. 30, 66.
New York.

270. APHIS SAMBUCIFOLIÆ.

Aphis sambucifoliæ, *Fitch, The Senate*, No. 30, 66.
New York.

271. APHIS PINICOLENS.

Aphis pinicolens, *Fitch, The Senate*, No. 30, 66.
New York.

272. APHIS POPULIFOLIÆ.

Aphis populifoliæ, *Fitch, The Senate*, No. 30, 66.
New York.

273. APHIS RUDBECKIÆ.

Aphis Rudbeckiæ, *Fitch, The Senate*, No. 30, 66.
New York.

274. APHIS ———?

Lachnus Abietis, *Fitch, The Senate*, No. 30, 67.
New York.

275. APHIS QUERCIFOLIÆ.

Lachnus Quercifoliæ, *Fitch, The Senate*, No. 30, 67.
New York.

276. APHIS SALICELLIS.

Aphis salicellis, *Fitch, The Senate*, No. 30, 67.
New York.

277. APHIS ALNIFOLIÆ.

Lachnus Alnifoliæ, *Fitch, The Senate*, No. 30, 67.
New York.

278. APHIS FARINOSA.

Aphis farinosa, *Deg. Ins.* iii. 76, 11, pl. 3, f. 31, pl. 4, f. 10—13.
Gmel. Ed. Syst. Nat. i. 4, 2210, 73.
Sweden.

279. APHIS FUSCULA.

Aphis fuscula, *Zett. Ins. Lapp.* i. 2, 311, 10.
Lapland.

280. APHIS PILOSA.

Apis pilosa, *Zett. Ins. Lapp.* i. 311, 3.
Lapland.

281. APHIS RUFIPES.

Aphis rufipes, *Hartig, Germ. Ent. Zeit.* iii. 369, 1.
Germany.

282. APHIS CYTISORUM.

Aphis cytisorum, *Hartig, Germ. Ent. Zeit.* 370, 14.
Germany.

283. APHIS CALLIPTERA.

Aphis callipterus, *Hartig, Germ. Ent. Zeit.* iii. 369.
Germany.

284. APHIS PALLIPES.

Aphis pallipes, *Hartig, Germ. Ent. Zeit.* iii. 369, 6.
Germany.

285. APHIS ——— ?

Aphis Vitellinæ, *Hartig, Germ. Ent. Zeit.* iii. 369, 3.
Germany.

286. APHIS VIMINALIS.

Aphis viminalis, *Hartig, Germ. Ent. Zeit.* iii. 369, 2.
Germany.

287. APHIS PILICORNIS.

Aphis pilicornis, *Hartig, Jahrb.* iii. 369.
Germany.

288. APHIS TULIPÆ.

Aphis Tulipæ, *Fonscol. Ann. Soc. Ent. Fr.* x. 167, 7.
France.

289. APHIS TUBEROSÆ.

Aphis Tuberosæ, *Fonscol. Ann. Soc. Ent. Fr.* x. 180, 22.
France.

290. APHIS AURANTII.

Aphis Aurantii, *Fonscol. Ann. Soc. Ent. Fr.* x. 178, 18.
France.

291. APHIS ? LAPIDARIA.

Chermes lapidarius, *Fabr. Syst. Rhyn.* 306, 19.
Lachnus lapidarius, *Burm. Handb. Ent.* ii. 1, 92, 1.
Austria.

292. APHIS GLANDULOSA.

Aphis glandulosa, *Kalt. Ent. Zeit.* vii. 170.
Prussia.

293. APHIS CERASTII.

Aphis Cerastii, *Kalt. Ent. Zeit. Stett.* vii. 171.

Distance between the first and second veins at the tips full twice that between them at the base; third vein as far from the second at the tip as at the base, as near to the second at the base as the second is to the first; first fork a little nearer to the third vein than to the second fork, as near to the third vein as the third is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein short, slightly curved, much nearer to the tip of the rib-vein than to the second fork.

a—d. Prussia. Presented by F. Walker, Esq.

294. APHIS SETOSA.

Aphis setosa, Kalt. *Ent. Zeit. Stett.* vii. 172.

Abdomen beset with spines. This species is perhaps one of the group which is represented by *A. Juglandis*, &c.

a—d. Prussia. Presented by F. Walker, Esq.

295. APHIS VALIDA.

Nigra, robusta, hirta; antennæ ferrugineæ, pilosæ, apice nigræ; scutellum ferrugineum; pedes ferruginei, pilosi, tibiis apice tarsisque nigris; alæ subcinereæ, venis fusco marginatis.

Black, stout, hairy: feelers ferruginous, hairy, rather thick, a little shorter than the body; fourth joint hardly half the length of the third; fifth, sixth, and seventh black; fifth as long as the fourth; sixth a little more than half the length of the fifth; seventh as long as the sixth, but much more slender: scutcheon ferruginous: nectaries spindle-shaped, about one-sixth of the length of the body: legs stout, ferruginous, hairy; feet and tips of the shanks black: wings slightly gray; veins stout, black, clouded with brown; rib-vein brown, forming a very obtuse angle beneath the rib-vein, which is pale brown; distance between the first and second veins at the base about half that between them at the tips; third hardly nearer to the second at the tip than at the base, farther from the second at the base than the second is from the first; third vein and its forks slightly curved towards the fourth vein; first fork at the tip a little nearer to the second fork than to the third vein, a little farther from the third vein than the third is from the second; second fork very little nearer to the fourth vein than to the first fork; fourth vein curved near the base, straight towards the tip, nearer to the second fork than to the tip of the rib-vein. Length of the the body 2 lines; of the wings 4 lines.

England.

296. APHIS SUBTERRANEA.

Viridis vel rufa; antennis apice thoracis disco femoribus tibiisque apice tarsisque obscuris; alis limpidis.

A. Ranunculi, Var.?

Dull green or pale red, stout, convex, somewhat oval: front almost straight: feelers stout, hardly half the length of the body;

3 X 3

fourth joint about half the length of the third ; fifth a little shorter than the fourth ; sixth shorter than the fifth ; seventh slender, almost as long as the fourth, fifth, and sixth : nectaries about one-twentieth of the length of the body : legs short.

The viviparous winged female. More slender than the wingless insect, almost elliptical : feelers more than half the length of the body : disk of the chest dark : nectaries about one-fifteenth of the length of the body : legs moderately long ; feet and tips of the thighs and of the shanks brownish : wings colourless ; distance between the first and second veins more than twice farther at the tips than at the base ; third a little nearer to the second at the base than at the tip, a little nearer to the second at the base than the second is to the first ; first fork a little nearer to the second fork than to the third vein, a little nearer to the third vein than the third is to the second ; second fork as near to the fourth vein as to the first fork ; fourth curved near the base, almost straight towards the tip, very much nearer to the second fork than to the tip of the rib-vein. In July, on the roots of the parsnip, occasionally at the depth of one foot beneath the surface, whereto it crawls when the wings are about to be developed. Length of the body 1 line ; of the wings $2\frac{3}{4}$ lines.

a—r. England. (In Canada Balsam). From Mr. Walker's collection.

297. APHIS TERRICOLA.

Aphis terricola, Rondani, Nuovi Annali delle Scienze Naturali di Bologna, Novembre, 1847.

Italy.

298. APHIS INSITA.

Viridi-rufa, ovata aut elliptica, convexa, disco nigra ; pedes graciles, femoribus tibiisque apice tarsisque nigris ; alis limpidis.

The viviparous wingless female. Oval, plump, shining, dull greenish red, with a black disk : front hardly convex : feelers much shorter than the body ; fourth joint more than half the length of the third ; fifth much shorter than the fourth ; sixth shorter than the fifth ; seventh a little longer than the fifth and the sixth : nectaries about one-eighth of the length of the body : legs of moderate length.

The viviparous winged female. Almost elliptical: feelers as long as the body: nectaries almost one-sixth of the length of the body: legs rather long; feet and tips of thighs and of shanks blackish: wings colourless; rib-veins and brands pale; distance between the first and second veins very much farther at the tips than at the base; third vein a little nearer to the second at the base than at the tip, as near to the second at the base as the second is to the first; first fork generally as near to the third vein as to the second fork, generally as near to the third vein as the third is to the second; second fork a little nearer to the fourth vein than to the first fork; fourth vein more or less curved, generally nearer to the second fork than to the tip of the rib-vein. In May, on Cineraria. Length of the body $\frac{2}{3}$ line; of the wings 2 lines.

a—e. England. (In Canada Balsam). Presented by F. Walker, Esq.

299. APHIS ABROTANI.

Pallida; thoracis discus niger; alæ limpidae.

Pale; disk of the chest dark: feelers, nectaries, and legs of moderate length: wings colourless; distance between the first and second veins at the base half of that between them at the tips; third much nearer to the second at the base than at the tip, as near to the second at the base as the second is to the first; first fork hardly nearer to the second fork than to the third vein, very much nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein curved near the base, almost straight towards the tip, farther from the tip of the rib-vein than from the second fork.

England.

300. APHIS ABIETARIA

Nigra, obscura, convexa, subovata, albo pollinosa; antennæ corporis dimidio vix longiores; cornicula brevia; pedes sat breves.

The viviparous wingless female. Nearly oval, very convex, dull coal-black, with a slight white tinge, rather larger than *A. Abietina*: feelers rather more than half the length of the body: legs are rather short: nectaries about one-twelfth of the length of the body.

a. England. Presented by F. Walker, Esq.

301. APHIS EGENS.

Pallida et aptera vel nigra et alata; hujus thoracis segmentorum margines flavo-virides; abdomen flavo-viride, lateribus nigro maculatum, corniculis brevissimis; antennæ corpore non longiores; pedes fœm. alatæ nigri, femoribus anticis tibiisque flavis.

The viviparous wingless female. Bright lemon-colour, inclining to white beneath, oval, convex, very small, rather short: feelers black, as long as the body, yellow at the base: mouth pale yellow, with a black tip, nearly reaching the hind hips: nectaries yellow, with black tips, hardly one-twelfth of the length of the body: legs pale yellow; knees, feet, and tips of shanks black.

Var. β . Yellowish white.

Var. γ . Saffron-colour.

The viviparous winged female. Black: feelers shorter than the body: mouth dull yellow, with a black tip: fore border and hind border of fore-chest and fore-breast dull greenish yellow: abdomen dark yellowish green, with a row of black spots on each side: nectaries black, about one-twelfth of the length of the body: fore-thighs and shanks except their tips dull yellow: wing-ribs pale yellow; rib-veins yellow; brands pale brown; branch-veins brown.

England.

302. APHIS HIPPOPHAES.

Flava, fusiformis; thoracis discus in alatis fuscus; antennæ corpore breviores; cornicula mediocria; alæ limpidæ.

The viviparous wingless female. Pale yellow, spindle-shaped, sometimes tinged with red: a few green dots on the back, and a row of transverse green spots along each side of the body: front bristly: feelers shorter than the body; first joint angular on the inner side of its tip; fourth joint much shorter than the third; fifth shorter than the fourth; sixth much shorter than the fifth; seventh a little longer than the sixth: nectaries from one-fifth to one-sixth of the length of the body.

The viviparous winged female. Disk of the chest brownish: wings colourless; distance between the first and second veins about twice farther at the tips than at the base; third very much farther

from the second at the tip than at the base, very much nearer to the second at the base than the second is to the first; first fork a little nearer to the second fork than to the third vein, nearer to the third vein than the third is to the second; second fork a little nearer to the first fork than to the fourth vein; fourth vein curved near the base, straight towards the tip, nearer to the tip of the rib-vein than to the second fork. Length of the body $\frac{3}{4}$ line; of the wings 2 lines.

England.

303. APHIS MELISSÆ.

Pallida, minuta, elliptica; antennæ corpore multo longiores; cornicula longissima.

The viviparous wingless female. Elliptical, pale yellow, very small: front narrow, with a conical protuberance on each side: feelers very much longer than the body; fourth joint about half the length of the third; fifth as long as the fourth; sixth much shorter than the fifth; seventh as long as the third: nectaries about one-third of the length of the body: legs long. Length of the body $\frac{1}{2}$ line.

England.

304. APHIS CISTI.

Flavescens, minuta, brevis, lata, fere elliptica; antennæ corpore breviores; cornicula brevia.

The viviparous wingless female. Yellowish, convex, small, short, brown, almost elliptical: front slightly convex: feelers much shorter than the body; joints from the third to the sixth successively decreasing in length; seventh more than twice the length of the sixth: nectaries about one-eighth of the length of the body: legs rather short.

The viviparous winged female. Feelers a little shorter than the body: wings colourless; distance between the first and second veins more than twice farther at the tip than at the base; third more than twice farther from the second at the tip than at the base; very little farther at the base from the second than the second is from the first; first fork nearer to the second than to the third vein; second fork often wanting; fourth vein slightly curved, farther from the tip of

the rib-vein than from the second fork. Length of the body $\frac{1}{3}$ line; of the wings $1\frac{1}{3}$ line.

Scotland.

305. APHIS POÆ.

Aphis Poæ, Hardy, *North British Agriculturist*, ii. 788. (Dec. 12th, 1850).

Scotland.

306. APHIS STELLARIÆ.

Aphis Stellariæ, Hardy, *North British Agriculturist*, ii. 788.

Aphis Holci, Hardy, *North British Agriculturist*, ii. 531.

Scotland.

307. APHIS ERICÆ.

Aphis Ericæ, Hardy, MSS.

Viridis, minuta, nitens, convexa, subgranulosa; vertex bifoveolata; antennæ corpore longiores; abdomen substylatum, corniculis ellipticis.

"Grass-green, small, shining, flask-shaped, convex above, very slightly granulose: two minute foveæ on the crown, and a very minute notch in front: legs testaceous: mouth with a black tip: feelers springing from slight tubercles, setaceous, dusky, longer than the body; first and second joints greenish; third long; fifth shorter than the fourth; sixth very short; seventh long and slender: sides margined, somewhat dusky: a style at the tip of the abdomen: nectaries elliptical: legs of moderate length, slightly pubescent, dusky greenish; shanks, excepting a band near each tip and tips of the thighs, darker; claws black. Length of the body about $\frac{3}{4}$ line." Hardy, MSS.

Scotland.

308. APHIS HUMILIS.

Flava, gracilis, fusiformis; frons trituberculata; antennæ corporis dimidio vix longiores; cornicula brevissima; pedes sat breves.

The viviparous wingless female. Pale yellow, long, slender, spindle-shaped, rather flat: three tubercles on the front: feelers

very slender, about half the length of the body ; fourth joint about half the length of the third ; fifth as long as the fourth ; sixth a little shorter than the fifth ; seventh more than twice the length of the sixth : abdomen with a short style at the tip : nectaries less than one-twelfth of the length of the body : legs rather short. Length of the body 1 line.

a. England. (In Canada Balsam). Presented by F. Walker, Esq.

309. APHIS BETULINA.

Fuscescens ; antennæ corpore breviores ; cornicula pallida, medio-cria ; pedes pallidi, tibiis apice tarsisque nigricantibus ; alæ limpidæ.

The viviparous winged female. Small, brownish : feelers pale towards the base, rather stout, shorter than the body ; fourth joint much shorter than the third ; fifth as long as the fourth ; sixth a little shorter than the fifth ; seventh about twice the length of the sixth : nectaries pale, about one-sixth of the length of the body : legs pale ; feet and tips of the shanks blackish : wings colourless ; distance between the first and second veins more than twice farther at the tips than at the base ; third very much nearer to the second at the base than at the tip, as near to the second at the base as the second is to the first ; first fork a little nearer to the third vein than to the second fork, very much nearer to the third vein than the third is to the second ; second fork a little nearer to the fourth vein than to the first fork ; fourth vein slightly curved, much farther from the tip of the rib-vein than from the second fork. Length of the body $\frac{1}{2}$ line ; of the wings $1\frac{1}{2}$ line.

England.

310. APHIS SUPERABILIS.

Obscurè flavescent, convexa, sat lata, subelliptica ; antennæ corpore plus minusve breviores ; thoracis discus in alatis niger ; pedes pallidi, femoribus tibiisque apice tarsisque fuscis ; alæ limpidæ.

The viviparous wingless female. Dingy yellow, convex, rather broad, almost elliptical : front slightly convex : feelers about half the length of the body ; fourth joint much shorter than the third ;

fifth shorter than the fourth ; sixth shorter than the fourth ; seventh about twice the length of the sixth : nectaries a little more than one-twentieth of the length of the body : legs of moderate length.

The viviparous winged female. Feelers almost as long as the body ; seventh joint about thrice the length of the sixth : disk of the chest black : legs pale ; feet and tips of the thighs and of the shanks brownish : wings colourless ; distance between the first and second veins almost twice farther at the tips than at the base ; third much nearer to the second at the base than at the tip, as near to the second as the second is to the first ; first fork nearer to the third vein than to the second fork, much nearer to the third vein than the third is to the second ; second fork generally a little nearer to the fourth vein than to the first fork ; fourth vein much curved, a little farther from the tip of the rib-vein than from the second fork.

a—c. England. (In Canada Balsam). From Mr. Walker's collection.

311. APHIS GRACILIS.

Nigricans, gracilis, subtus pollinosa ; antennæ corpore vix breviores ; abdomen viride, corniculis brevissimis ; pedes pallidi, femoribus tibiisque apice tarsisque nigris ; alæ albæ.

Blackish, slender, covered beneath with white powder : feelers slender, nearly as long as the body ; fourth joint very much shorter than the third ; fifth shorter than the fourth ; sixth subclavate, much shorter than the fifth ; seventh longer than the fifth : abdomen green ; nectaries very short : legs pale, long, slender ; feet and tips of the thighs and of the shanks black : wings white ; brands pale, rather long ; veins black towards the tips ; distance between the first and second veins at the tips about thrice that between them at the base ; third much farther from the second at the tip than it is at the base, a little farther from the second at the base than the second is from the first ; first fork at the tip nearer to the third vein than to the second fork, much nearer to the third vein than the third is to the second ; second fork nearer to the fourth vein than to the first fork ; fourth vein curved, especially near the base, nearer to the second fork than to the tip of the rib-vein. From the willow, in October. Length of the body $1\frac{1}{2}$ line ; of the wings $3\frac{1}{2}$ lines.

Var. First fork wanting towards the tip.

a. England. Presented by F. Walker, Esq.

312. APHIS VERATRI.

Nigra, ovata, convexa, obscura, cinereo pollinosa; antennæ corporis dimidio vix breviores; cornicula corporis decima longitudine; pedes albi, femoribus tibiisque apice tarsisque nigris.

The viviparous wingless female. Black, oval, convex, small, not shining, with a slight gray bloom: feelers nearly half the length of the body: nectaries about one-tenth of the length of the body: legs white; feet and tips of thighs and of shanks black. A. Rumicis, Var? From Veratrum album. Length of the body $\frac{3}{4}$ line. Switzerland.

313. APHIS TRIPHAGA.

Nigra, fusiformis, viridis, aut nigro-viridis, albo pollinosa; antennæ basi flavæ, corporis dimidio vix breviores; cornicula alba, apice nigra, corporis decima non longiores; pedes flavi, tibiis apice genubus tursisque nigris.

The viviparous wingless female. Small, spindle-shaped, very variable in colour, being either black, dark olive-green, or dull red, always covered with white bloom: feelers black, pale yellow towards the base, hardly half the length of the body: mouth pale yellow, with a black tip: nectaries white, hardly one-tenth of the length of the body; tips black: legs pale yellow, moderately long; knees, feet, and tips of shanks black. On Epilobium. England.

314. APHIS INHÆRENS.

Pallide flava, subovata, depressa, setosa; antennæ gracillimæ, corporis dimidio paullo breviores; cornicula brevissima; pedes breves.

The viviparous wingless female. Pale yellow, flat, bristly, increasing in breadth from the head till near the tip of the abdomen: mouth nearly reaching the middle hips: feelers very slender, rather less than half the length of the body; fourth joint much shorter than the third; fifth a little shorter than the fourth; sixth as long

as the fifth ; seventh a little longer than the sixth : front convex in the middle with a slight tubercle on each side : eyes dark piceous, prominent : legs slender, rather short ; fore-legs but little shorter than the hind legs ; shanks straight : nectaries less than one-twentieth of the length of the body. On the Birch. Length $\frac{3}{4}$ line.

England.

315. APHIS IMPINGENS.

Flava, depressa, subovata ; antennæ corporis quadrante breviores ; cornicula nulla ; pedes breves, validi.

The viviparous wingless female. Body yellow, rather flat, increasing in breadth from the head till near the tip of the abdomen : head forming a half circle, rounded in front : eyes piceous, on the top of the head, not on the sides as is usual : feelers not one-fourth of the length of the body ; first and second joints short ; fourth much shorter than the third ; fifth and sixth of moderate length ; seventh very short : mouth not reaching much beyond the fore-hips ; fore-chest moderately large ; sides convex ; nectaries not rising above the surface of the abdomen : legs short, rather stout ; fore-legs seated some way in advance of the fore hinder legs : abdomen rounded behind. On the Birch. Length of the body $\frac{3}{4}$ line.

England.

316. APHIS DIPHAGA.

Aptera. Parva, ovata, convexa, obscurè flava, viridi varia ; antennæ flavæ, apice nigræ, corpore paullo longiores ; cornicula viridia, corporis quadrante vix breviores ; pedes longi, flavi, tibiis apice tarsisque nigris.

Alata. Nigra vel nigro-fusca, nitens, linearis, pedes flavi ; femoribus tibiisque apice tarsisque nigris ; alæ limpidæ.

The viviparous wingless female. Small, oval, convex, smooth, not shining, pale yellow, and mottled with green : feelers pale yellow with black tips, a little longer than the body : mouth pale yellow with a black tip : nectaries dark green, about one-fourth of the length of the body : legs long, pale yellow ; feet and tips of the shanks black.

The viviparous winged female. Linear, shining, black or very dark brown: feelers and nectaries black: legs pale yellow: feet, tips of thighs and shanks black: wings nearly twice the length of the body; wing-ribs and rib-veins pale yellow; brand and veins very pale brown. On *Epilobium*.

England.

317. APHIS SALVIÆ.

Nigra, sat gracilis; antennæ validæ, corpore paulò breviores; cornicula corporis quinta parte vix breviores; tibiæ pallidæ subpilosæ; alæ hyalinæ.

The viviparous winged female. Black, rather slender: feelers rather stout, a little shorter than the body; fourth joint much shorter than the third; fifth a little shorter than the fourth; sixth a little shorter than the fifth; seventh a little longer than the sixth: nectaries about one-fifth of the length of the body: legs rather long: shanks pale, somewhat hairy: wings colourless; distance between the first and second veins much more than twice farther at the tips than at the base; third vein almost twice farther from the second at the tip than at the base, much farther from the second at the base than the second is from the first; first fork very much nearer to the second fork than to the third vein, a little nearer to the third vein than the third is to the second; second fork a little nearer to the first fork than to the fourth vein; fourth vein curved, straight near the tip, much nearer to the second fork than to the tip of the rib-vein. From *Salvia pratensis*. Length of the body 1 line; of the wings 3 lines.

a. Switzerland. Presented by F. Walker, Esq.

318. APHIS PALANS.

Oleaginea, longa, linearis, subcylindrica, albo pollinosa; antennæ nigrae, corporis triente non longiores; pedes breves, virides, tibiis apice tarsisque nigris.

The wingless female. Olive-green, long, linear, almost cylindrical, powdered with white: feelers black, setaceous, about one-third of the length of the body: legs dull green, short; hips, feet, and tips of shanks black.

England.

319. APHIS REDUCTA.

Viridi-fulva, convexa, subovata; antennæ graciles, corpore multo longiores; cornicula corporis decima longitudine; pedes longi, graciles.

The viviparous wingless female. Greenish-tawny, convex, pear-shaped; front straight, bristly: feelers slender, much longer than the body; fourth joint much shorter than the third; fifth a little shorter than the fourth; sixth a little more than half the length of the fifth; seventh almost as long as the fifth and sixth: abdomen more than twice the breadth of the chest, with a style at the tip: nectaries a little shorter than the style, and about one-tenth of the length of the body: legs long and slender. From the Sea Worm-wood. Length of the body 1 line.

England.

320. APHIS PERSEQUENS.

Viridis, ovata, convexa; antennæ gracillimæ, corpore longiores; cornicula corporis quadrante longitudine; pedes longi, graciles; alæ hyalinæ.

The viviparous wingless female. Allied to *A. Ulmariae*. Pale green, oval, convex: front narrow: feelers very slender; first joint stout, seated on a protuberance; fourth much shorter than the third; fifth a little shorter than the fourth; sixth not half the length of the fifth; seventh longer than the third: abdomen with a very short style: nectaries slender, as long as one-fourth of the body: legs long and slender.

The viviparous winged female. Wings colourless; veins pale; distance between the first and second veins much more than twice farther at the tips than at the base; third a little nearer to the second at the base than at the tip, a little nearer to the second at the base than the second is to the first; first fork much nearer to the second fork than to the third vein, not nearer to the third vein than the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein slightly curved, much nearer to the tip of the second fork than to the tip of the rib-vein. From the Tansy. Length of the body $1\frac{1}{4}$ line; of the wings 2 lines.

Var. Second and third veins united by a cross-vein ; fourth wanting towards the tip.

England.

321. APHIS MENTHÆ.

Pallide flava, subfusiformis ; antennæ graciles, corpore paullo longiores ; cornicula corporis octava longitudine ; pedes graciles sat longi.

Pale yellow, almost spindle-shaped : front narrow : feelers slender, a little longer than the body ; first joint seated on a tubercle ; fourth much shorter than the third ; fifth a little shorter than the fourth ; sixth shorter than the fifth ; seventh long, slender : abdomen with a very short style : nectaries about one-eighth of the length of the body : legs slender, rather long. From *Mentha hirsuta*. Length of the body $\frac{1}{2}$ line.

England.

322. APHIS TENTANS.

Fulva, ovata, convexa ; antennæ corporis dimidio non longiores ; cornicula brevissima ; pedes breves.

Tawny, oval, convex : front narrow, slightly convex : feelers about half the length of the body ; fourth joint a little shorter than the third ; fifth much shorter than the fourth ; sixth shorter than the fifth ; seventh as long as the fifth and sixth : nectaries about one-twentieth of the length of the body : legs short. From *Mentha hirsuta*. Length of the body $\frac{1}{2}$ line.

England.

323. APHIS ASCITA.

Aptera. Flavo-viridis, ovata, convexa ; antennæ corporis paullo longiores ; cornicula obscura, corporis decima non longiores.

Alata. Thoracis discus nigricans ; alæ hyalinæ.

The viviparous wingless female. Yellowish-green, oval, convex : front slightly convex : feelers a little longer than the body :

fourth joint much shorter than the third; fifth a little shorter than the fourth; sixth shorter than the fifth; seventh longer than the fifth and the sixth: abdomen with a very short style at the tip: nectaries darker than the body, and about one-tenth of its length: legs of moderate length.

The viviparous winged female. Disk of the chest dark: wings colourless; distance between the first and second veins much more than twice farther at the tips than at the base; third much farther from the second at the tip than at the base, much farther from the second at the base than the second is from the first; first fork as near to the third vein as to the second fork, much nearer to the third vein than the third is to the second; second fork nearer to the first fork than to the fourth vein; fourth vein curved, almost straight towards the tip, as far from the second fork as from the tip of the rib-vein. From the leaves of the Melon and the Cucumber. Length of the body $\frac{1}{2}$ line; of the wings $1\frac{1}{2}$ line.

England.

324. APHIS RANUNCULINA.

Pallide flava, fere elliptica; fronte angusta, utrinque tuberculata; antennis corpore paullo longioribus; corniculis pedibusque sat longis.

Pale yellow, almost elliptical: front narrow: feelers slender, a little longer than the body; first joint seated on a slight tubercle; fourth more than half the length of the third; fifth shorter than the fourth; sixth much shorter than the fifth; seventh more than twice the length of the sixth; nectaries about one-sixth of the length of the body: legs slender, rather long. Length of the body $\frac{3}{4}$ line.

a—h. England. (In Canada Balsam). From Mr. Walker's collection.

325. APHIS ——— ?

Aphis Zeæ, *Curt. Ruricola, Gard. Chron.* ii. 4, 1842.

England.

326. APHIS ——— ?

Aphis Saliceti, *Harris, Ins. Mass.* 190.

United States.

Genus 2. SCHIZONEURA.

Schizoneura, *Hartig, Germ. Ent. Zeit.* iii. 367, pl. 1, f. 23, 24.

Kalt. Ratz.

Aphis, p., *Linn., Deg., Fabr., Schrank, Rossi, Gmel., Hausmann, Fonscol., Harris.*

Eriosoma, *Leach, Samouelle, Westw., Mosley, Fitch.*

Myzoxylus, *Blot, Mem. Soc. Linn. Calvados*, i. 114. *Latr. Tou-gard, Amyot et Serv.*

Coccus, *Bingley.*

Cinara, p., *Curtis.*

Mimaphidus, *Rondani Osservazioni sopra parecchie specie di esapodi Afidicidi; Nuovi Annali delle Seringe Naturali di Bologna*, 1847.

1. SCHIZONEURA CORNI.

Schizoneura Corni, *Hartig, Germ. Ent. Zeit.* iii. 367. *Kalt. Mon. Pfl.* 168, 1.

Aphis Corni, *Fabr. Sp. Ins.* ii. 385, 15. *Mant. Ins.* ii. 315, 18. *Syst. Ent.* 736, 13. *Ent. Syst.* iv. 214, 19. *Syst. Rhyn.* 297, 19. *Gmel. Ed. Syst. Nat.* i. 2204, 47. *Schrank, Faun. Boic.* ii. 106, 1188. *Rossi, Faun. Etrusc.* 261, 1376. *Fonscol. Ann. Soc. Ent. Fr.* x. 188, 30.

Cornifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 483.

Small, black: the base of the abdomen paler: feelers rather more than half the length of the body: mouth yellow, with a black tip: legs black, moderately long; fore-thighs yellow at the base: wings slightly tinged with gray, much longer than the body; wing-ribs pale; veins and brand black; the latter large almost elliptical: distance between the first and second veins at the base about one-third of that between them at the tips; second vein very slightly undulating; third vein much nearer to the second towards the base than at the tip, nearer to the second at the tip than the second is to the first; fork at the tip farther from the third vein than the third

is from the second, as far from the third vein as from the fourth ; fourth curved near the base, straight towards the tip, farther from the rib-vein than from the fork.

Var. Second vein more undulating, about six times farther from the first at the tip than at the base.

a. England. Presented by F. Walker, Esq.

2. SCHIZONEURA LANIGERA.

Aphis lanigera, *Hausmann, Illig. Mag.* i. 440, 50. *Sir Joseph Banks, Hort. Soc. Trans.* ii. 162, pl. 11. *Forsyth*, 265, *Monthly Mag.* xxxii. 320 (and for August, 1811). *Gard. Mag. Jan.* 1828. *Kirby & Spence, Intr. Ent.* i. 29, 200 ; ii. 225 ; iii. 182. *Salisbury, Hints on Orchards*, 39. *Knapp, Journ. Naturalist*, *Buel, New Engl. Farmer*, vii. 169 ; ix. 178. *Harris, Ins. New Engl.* 193, 1843, 267, 3454. *Ann. Sci. Nat.* 1831. *D'Arcilly, Bull. Acad. Ebb.* 1834. *Audouin, Ann. Soc. Ent. Fr.* iv. 9, *App. Goureau, Ann. Soc. Ent. 2me Série*, ii.

Coccus Mali, *Bingley, Anim. Biog.* iii. 200.

Eriosoma Mali, *Leach, MSS. Samouelle, Comp.* i. 16. *Sir Oswald Mosley, Gard. Chron.* i. 828.

Myzoxylus Mali, *Blot, Mem. de la Soc. Linn. du Calvados*, i. 114, 1824. *Mem. Soc. Agric. de Caen*, 1830, 58. *Latr. Fam. Nat.* 4207. *Amyot et Serv. Hist. Nat. Hém.* 612. *Tougaard, Ann. Soc. Hortic. Paris*, xiv. 341.

Schizoneura lanigera, *Hartig, Germ. Ent. Zeit.* iii. 367. *Kalt. Mon. Pflan.* i. 169, 2.

Aphis (Schizoneura) lanigera, *Ratz. Forst. Ins.* iii. 221, 31.

Myzoxylus, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 481, 532.

Lachnaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 483.

Eriosoma lanigera, *Ruricola, Gard. Chron.* iv. 116. *Fitch, The Senate*, No. 30, 67.

a—o. England. (In Canada Balsam). From Mr. Walker's collection.

3. SCHIZONEURA LANUGINOSA.

Schizoneura lanuginosa, *Hartig, Germ. Mag.* iii. 367. *Kalt. Mon. Pflan.* 170, 3.

Aphis (Schizoneura) lanuginosa, *Ratz. Forst. Ins.* iii. 220, 1, pl. 13, f. 1.

Aphis, *Réaum. Ins.* iii. *Hausm. Ill. Mag.* i. 440.
 Aphis Ulmi, *Fonscol. Ann. Soc. Ent. Fr.* x. 190, 33.
 Lachnodaphis, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 483.
 Europe.

4. SCHIZONEURA TREMULÆ.

Schizoneura Tremulæ, *Kalt. Mon. Pfl.* 171, 4.
 Aphis (Schizoneura) Tremulæ, *Ratz. Forst. Ins.* iii. 222, 32.
 Aphis Tremulæ, *Deg. Ins.* iii. 62, 15, pl. 7, f. 1—7. *Linn. Syst. Nat.* ii. 736, 28. *Faun. Suec.* 997. *Gmel. Ed. Syst. Nat.* i. 4, 2208, 28. *Fabr. Syst. Rhyn.* 302, 55. *Stew. El. Nat. Hist.* ii. 111.
 Tremulifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 483.
 Europe.

5. SCHIZONEURA ULMI.

Aphis Ulmi, *Linn. Syst. Nat.* ii. 733, 2. *Faun. Suec.* 976. *It. Scand.* 203. *Fabr. Sp. Ins.* ii. 385, 7. *Munt. Ins.* ii. 316, 37. *Ent. Syst.* iv. 217, 36. *Syst. Rhyn.* 299, 37. *Gmel. Ed. Syst. Nat.* i. 2202, 2. *Réaum. Ins.* iii. 281—350, pl. 25, f. 4—7. *Geoff. Ins. Par.* i. 494, 1, pl. 10, f. 3. *Deg. Ins.* iii. 81, 13, pl. 5, f. 7—18. *Bonnet, Hist. Nat.* i. 8, pl. 1, f. 3. *Latr. Gen.* iii. 173. *Schrank, Faun. Boic.* ii. 1, 109. *Rossi, Faun. Etrusc.* 263, 1391. *Berk. Syn.* i. 119. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 706. *Shaw, Gen. Zool.* vi. pl. 58, f. inf. *Fonscol. Ann. Soc. Ent. Fr.* x. 190, 33. *St. Farg. et Serv.* x. 248. *Nour. Dict. Hist. Nat.* xxviii. 254.
 Aphis foliorum-Ulmi, *Deg. Ins.* iii. 13, pl. 5, f. 7—22.
 Eriosoma Ulmi, *Sir Oswald Mosley, Gard. Chron.* i. 828.
 Schizoneura Ulmi, *Kalt. Mon. Pfl.* i. 173, 5.
 Aphis (Schizoneura) Ulmi, *Ratz. Forst. Ins.* iii. 221, 29.
 Chermes Ulmi? *Burm. Handb. Ent.* ii. 91, 3.
 Schizoneura, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 483, 533.
 Cinara Gallarum-Ulmi? *Ruricola, Gard. Chron.* iv. 37.

Dull black; feelers stout, black, moniliform, slightly setaceous, shorter than the body: abdomen very short, slightly covered with gray filaments: legs moderately long: wings colourless, very much longer than the body; wing-ribs black; brand and veins brown; brand linear, rather long, acutely angular at each end; distance

between the first and second veins at the tips full eight times that between them at the base; third vein nearer to the second towards the base than at the tip, much nearer to the second at the tip than the second is to the first; fork not nearer to the third vein than the third is to the second, nearer to the fourth vein than to the third; fourth vein long, straight, slightly curved near the base, much nearer to the fork than to the tip of the rib-vein.

a—z. England. (In Canada Balsam). From Mr. Walker's collection.

6. SCHIZONEURA REAUMURI.

Schizoneura Reaumuri, *Kalt. Mon. Pflanz.* 175, 6, f. 4, 5.

Aphis, &c., *Réaumur. Ins.* iii. pl. 23, f. 1—3.

Aphis (*Schizoneura*) *Reaumuri*, *Ratz. Forst. Ins.* iii. 221, 30.

Europe.

7. SCHIZONEURA COSTATA.

Schizoneura costata, *Hartig, Germ. Ent. Zeit.* iii. 367.

Lachnus costatus, *Hartig, Jahresbericht.*

Germany.

8. SCHIZONEURA ALBA.

Aphis (*Schizoneura*) *alba*, *Ratz. Forst. Ins.* iii. 222, 34, pl. 13, f. 3.

Germany.

9. SCHIZONEURA STIGMA.

Cinara stigma, *Curt. Ruricola, Gard. Chron.* iv. 37, 1844.

Wings whitish: brand black, broad, irregularly elliptical; distance between the first and second veins at the base hardly one-sixth of that between them at the tips; third vein nearer to the second towards the base than at the tip, nearer to the second at the tip than the second is to the first; fork much nearer to the fourth vein than to the third, farther from the third than the third is from the second; fourth vein long, straight, slightly curved near the base, more than twice farther from the tip of the rib-vein than from the fork.

England.

10. SCHIZONEURA OBSCURA.

Nigra ; alæ cinereæ, stigmatè nigro lato subovato.

Black, a little broader than *S. Corni*: wings gray; brand black, broad, almost oval; distance between the first and second veins at the base hardly one-fourth of that between them at the tips; third vein nearer to the second towards the base than at the tip, nearer to the second than the second is to the first; fork much nearer to the fourth vein than to the third, a little farther from the third than the third is from the second; fourth vein moderately long, straight, curved near the base, much nearer to the tip of the fork than to the rib-vein. Length of the body $\frac{3}{4}$ —1 line; of the wings $2\frac{1}{2}$ — $2\frac{3}{4}$ lines.

a. England. Presented by J. C. Dale, Esq.

11. SCHIZONEURA TURBIDA.

Nigra ; alæ cinereæ, stigmatè fusco sat lato subfusiformi.

Black, rather slender: wings gray; brand brown, rather broad, irregularly spindle-shaped, acutely angular at each end; distance between the first and second veins at the base not more than one-eighth of that between them at the tips; third vein nearer to the second towards the base than at the tips, not half so far at the tips from the second as the second is from the first; fork hardly nearer to the third vein than to the fourth, hardly nearer to the third than the third is to the second; fourth vein long, straight, slightly curved towards the base, much nearer to the fork than to the tip of the rib-vein. Length of the body 1 line; of the wings 3 lines.

England.

12. SCHIZONEURA ALBIPENNIS.

Nigra ; alæ albæ, stigmatè nigro fusco sublineari, venis albis.

Black, thick, rather broad: feelers shorter than the body: wings white; brand dark brown, rather broad, almost linear, forming an obtuse angle at the base of the fourth vein, and an acute angle at the tip; veins white, very indistinct. Length of the body 1 line; of the wings 3 lines.

England.

13. SCHIZONEURA? LANATA.

Aphis lanata, *Zett. Ins. Lapp.* i. 2, 311, 5.
Lapland.

14. SCHIZONEURA? PYRI.

Eriosoma Pyri, *Fitch, The Senate*, No. 30, 68.
New York.

15. SCHIZONEURA? TESSELLATA.

Eriosoma tessellata, *Fitch, The Senate*, No. 30, 68.
New York.

16. SCHIZONEURA? IMBRICATOR.

Eriosoma imbricator, *Fitch, The Senate*, No. 30, 68.
New York.

Genus 3. THELAXES.

Thelaxes, *Westw. Intr. Ent.* i. 118.
Vacuna, *Von Heyden, Kalt. Mon. Pfl.* 177. *Ratz.*

1. THELAXES BETULÆ.

Vacuna Betulæ, *Heyden, Kalt. Mon. Pfl.* 177, 1, f. 19—21.
Aphis (*Vacuna*) *Betulæ*, *Ratz. Forst. Ins.* iii. 223, 38.
Tremulinax, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 483.

Var. Green, with dark brown bands: head black.

a—c. England. (In Canada Balsam). Presented by F. Walker, Esq.

2. THELAXES DRYOPHILA.

Aphis dryophila, *Schrank, Faun. Boic.* ii. 1, 113. 1210.
Vacuna dryophila, *Heyden, Kalt. Mon. Pfl.* 178, 2.
Aphis (*Vacuna*) *dryophila*, *Ratz. Forst. Ins.* iii. 223.
Vacuda, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 483, 534.
Cinaria Quercûs, *Sir Oswald Mosley, Gard. Chron.* i. 621.

Var. Reddish brown, broad, short-oval, slightly convex, red towards the head and along the middle of the body, which beneath is dull pale red and covered with a white bloom: feelers black, not one-fourth of the length of the body: mouth pale red, with a black tip, reaching the hind-hips.

Var. Pale green, with a white stripe from the head extending along two-thirds of the back: feelers and legs white; the former are not half the length of the body: mouth white, with a black tip. When very young it is pale yellow, with two vivid irregular green stripes on the back.

Var. Feelers whitish, not one half the length of the body: mouth whitish, with a brown tip, extending a little beyond the hind hips: legs whitish; feet and tips of shanks brown. As it grows it becomes broader, and acquires a red hue, which first appears about the head and the chest, and afterwards overspreads the whole body. When full-grown, the head, feelers, legs, some spots on each side of the thorax, and the greater part of the back of the abdomen are very dark red, and it is covered with white bloom: mouth pale green, reaching beyond the middle-hips; its tip is brown. During its growth it exhibits many varieties and shades of colour between green and pale red and dark red, and is sometimes mottled with all these hues.

The viviparous winged female. Dark brown: abdomen pale brown: feelers pale brown, dark brown at the base, more than half the length of the body: mouth brown: legs pale brown: wings colourless, horizontal when at rest, much longer than the body; wing-ribs and veins brown.

a—o. England. (In Canada Balsam). From Mr. Walker's collection.

Genus 4. PEMPHIGUS.

Pemphigus, Hartig, *Germ. Ent. Zeit.* iii. 366, pl. 1, f. 21, 22. *Kalt., Westw.*

Aphis, p., *Linn., Fabr., Rossi, Schrank, Sulz., Gmel., Kirby & Spence, Fonscol.*

Eriosoma, Heyden, Mosley, Jenyns.

Aphioides et Baizongia, Rondani *Osservazioni, &c. Nuovi Annali delli Scienze Naturali di Bologna*, 1847, 64.

1. PEMPHIGUS GNAPHALII.

Pemphigus Gnaphalii, *Kalt. Mon. Pfl. an.* 180, 1.

Aphis Filaginis? *Fonscol. Ann. Soc. Ent. Fr.* x. 188, 31.

The wingless female. Oval, pale yellowish green or dark gray, thickly covered with white powder: feelers black: mouth pale yellow, with a black tip, reaching the middle-hips: eyes black: legs dull yellow, moderately long; feet and tips of shanks black; thighs sometimes black.

a—c. Scotland. Presented by J. Hardy, Esq.

2. PEMPHIGUS AFFINIS.

Pemphigus affinis, *Kalt. Mon. Pfl. an.* i. 182, 2, f. 15.

Aphis (Pemphigus) affinis, *Ratz. Forst. Ins.* iii. 222, 36.

Aphis ———? *Réaum. Ins.* iii. pl. 27, f. 5, 6.

Europe.

3. PEMPHIGUS BURSARIUS.

Pemphigus bursarius, *Kalt. Mon. Pfl. an.* 182, 3, f. 13, 14.

Aphis (Pemphigus) bursarius, *Ratz. Forst. Ins.* iii. 222, 35.

Aphis bursaria, *Linn. Syst. Nat.* ii. 756, 29. *Faun. Suec.* 998. *It. Scand.* 311. *Fabr. Sp. Ins.* ii. 385, 8. *Mant. Ins.* ii. 315, 9. *Ent. Syst.* iv. 212, 9. *Syst. Rhyn.* 295, 9. *Geoff. Ins. Par.* i. 497, 11. *Hofm. Altd. Hort.* 51. *Seba, Mus.* i. pl. 38, f. 8. *Jung. Verm.* 161, 162. *Rüpp. Jenens.* iii. 333. *Hort. Amb.* pl. 96. *Merian, Ins. Europ.* i. 15, pl. 42. *Swammerd. Ins.* 45, f. 22—25. *Réaum. Ins.* iii. pl. 26, f. 7—11. *Gmel. Ed. Syst. Nat.* i. 4, 2208, 29. *Schrank, Faun. Boic.* ii. 113, 1211. *Stew. El. Nat. Hist.* ii. 111. *Turt. Syst. Nat.* ii. 703, *Hausm. Ill. Mag.* i. 434, 1. *Burm. Handb. Ent.* ii. 189, 1. *Kirby & Spence, Intr. Ent.* i. 451. *Fonscol. Ann. Soc. Ent. Fr.* x. 193, 33.

Eriosoma Populi, *Sir Oswald Mosley, Gard. Chron.* i. 828.

Pemphigus, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 484, 535.

Aphioides bursaria, *Rondani, Osservazioni, &c.* 64, 847.

Eriosoma bursaria, *Ruricola, Gard. Chron.* iv. 164.

a—z. England. (In Canada Balsam). From Mr. Walker's collection.

4. PEMPHIGUS BUMELIÆ.

- Pemphigus Bumeliæ, *Kalt. Mon. Pfl. 184*, 4.
 Aphis (Pemphigus) Bumeliæ, *Ratz. Forst. Ins. iii. 223*, 37.
 Aphis Bumeliæ, *Schrank, Faun. Boic. ii. 102*.
 Eriosoma Bumeliæ, *Heyd. Mus. Senk. ii. 3*, 295.
 Bumelifex, *Amyot, Ann. Soc. Ent. Fr. 2me Série, v. 484*.
a, b. Prussia. Presented by F. Walker, Esq.
c—e. ——— ?

5. PEMPHIGUS RANUNCULI.

- Pemphigus Ranunculi, *Kalt. Mon. Pfl. 185*, 5.
 Aphis Polyanthis? *Sulz. Ins. 105*, pl. 11, f. 4, 5. *Gmel. Ed. Syst. Nat. i. 4*, 2209, 61.
 Aphis Graminis? *Réaumur. Ins. iii. 339*.
 Aphis radicum? *Fonscol. Ann. Soc. Ent. Fr. x. 195*, 37.
 Eriosoma Lactucæ? *Sir Oswald Mosley, Gard. Chron. i. 828*.
Jenyns.
 Pemphigus Lactucæ? *Westw. Gard. Chron.*
 Aphis of the China Aster? *Rusticus, Ent. Mag. i. 218*. *Harris, Ins. Mass. 190*.

The wingless female. Lives on roots throughout the year, and is enveloped in the white cottony matter which exudes from its body. Elliptical, pale greenish yellow or pale yellow, very plump; the sutures of its segments indistinct: feelers brown or dull yellow, with a brown tip to each joint: mouth brown or yellow, reaching the middle-hips or the hind-hips: legs brown or yellow, rather short, slender, weak; hips small, far apart; shanks as long as the thighs; feet very short; knees, feet, and tips of shanks sometimes black.

The winged female. Appears in the middle of September, and continues till the middle of October. While a pupa yellow: fore-chest large; middle-chest, hind-chest, and segments of the abdomen short, and of nearly equal size: feelers gray, as long as one-fourth of the body: eyes black: mouth pale yellow, with a gray tip: abdomen pale yellow: legs gray, short: rudimentary wings dark. With a white bloom when the wings are developed: fore-chest dark green, subquadrate; its breadth twice its length: feelers black, moniliform: mouth pale green, with a black tip: legs black, moderately

long; thighs pale green at the base: wings a little longer than the body; wing-ribs yellow or pale green; brand brown, with a dark brown border; veins brown.

a—c. Prussia. Presented by F. Walker, Esq.

d—r. England. (In Canada Balsam). From Mr. Walker's collection.

6. PEMPHIGUS DEGEERI.

Pemphigus Degeeri, *Kalt. Mon. Pfl.* 186, 6.

a—d. Prussia. Presented by F. Walker, Esq.

7. PEMPHIGUS XYLOSTEI.

Pemphigus Xylostei, *Kalt. Mon. Pfl.* 187, 7.

Aphis Xylostei, *Deg. Ins.* iii. 96, 16, pl. 7, f. 8. *Turt. Syst. Nat.* ii. 709.

Pemphigus Loniceræ, *Hartig, Germ. Zeit. Ent.* iii. 367.

Xylosthætins, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 484.

a, b. Prussia. Presented by F. Walker, Esq.

8. PEMPHIGUS PEDUNCULI.

Pemphigus Pedunculi, *Hartig, Germ. Ent. Zeit.* iii. 367.

Germany.

9. PEMPHIGUS FRAXINI.

Pemphigus Fraxini, *Hartig, Germ. Ent. Zeit.* iii. 367.

Aphis Fraxin? *Geoff. Ins. Par.* i. 494, 2. *Fabr. Sp. Ins.* ii. 386, 19. *Mant. Ins.* ii. 316, 23. *Ent. Syst.* iv. 215, 23. *Syst. Rhyn.* 297, 23. *Gmel. Ed. Syst. Nat.* i. 2206, 53. *Stew. El. Nat. Hist.* ii. 110. *Turt. Syst. Nat.* ii. 705. *Samouelle, Comp.* i. 4. *Kalt. Mon. Pfl.* i. 140, 106.

Germany.

10. PEMPHIGUS AMERICANUS.

Nigra, albo lanuginosa; alis subcinereis, stigmatibus et venis nigro-fuscis.

A little smaller and more slender than *P. Bumeliæ*; brand darker than that of *P. Xylostei*; distinguished from both species by its darker veins. Black, covered with white cotton-like matter: wings slightly gray; brand and veins dark brown. Length of the body 1 line; of the wings 4 lines.

a—d. Nova Scotia. From Lieut. Redman's collection.

11. PEMPHIGUS GLOBOSUS.

Pallide viridis, globosa, pollinosa; thorax in alato obscurus.

Pale green, short, broad, almost globose, thickly covered with white powder: feelers short: rib-vein diverging much from the fore border beneath the brand, converging more abruptly to it beyond the base of the fourth vein; first and second veins united at the base, diverging much from thence to the tips; third vein simple, wanting for one-third of the length from the base, nearer to the second at the tip than the second is to the first; fourth slightly curved near the base, straight from thence to the tip, as near to the third vein as to the tip of the rib-vein. From the roots of the Scarlet Runner, in November.

a—r. England. (In Canada Balsam). From Mr. Walker's collection.

12. PEMPHIGUS? PISTACIÆ.

Aphis Pistaciæ, *Linn. Syst. Nat.* ii. 737, 33. *Fabr. Sp. Ins.* ii. 389, 42. *Mant. Ins.* ii. 317, 47. *Ent. Syst.* iv. 219, 48. *Syst. Rhyn.* 301, 48. *Gmel. Ed. Syst. Nat.* i. 14, 2209, 33. *Simpl. Vit. Ges.* 49. *Camer. Epit.* 51. *Lob. Icon.* 100. *Dodon. Pempt.* 780. *Bauh. Hist.* i. 279. *Theodr. Hist.* 1439. *Réaumur. Hist. Nat. Ins.* iii. 281, 350, pl. 24, f. 6, pl. 25, f. 1—3. *Rossi, Faun. Etrusc.* 264, 1399. *Hofmann, Edl. von Hofmannsthal (Die Caruba di Guidea)*, 1842. *Kirby & Spence, Intr. Ent.* i. 451. *Fonscol. Ann. Soc. Ent. Fr.* x. 192, 34. *Kalt. Mon. Pflanz.* 140, 108. *Ferussac, Nouv. Bull. Sci.* iii. *Bull. Soc. Phil.* 1812, 1813.

Baizongia Pistaciæ, *Rondani, Osservazioni, &c. Nuovi Annali della Scienze Naturali di Bologna*, 64, 1847.

South of Europe.

13. PEMPHIGUS? SINENSIS.

The insect forming the Chinese galls, *Doubleday, Pharm. Journ.* vii. 310.

“Chest and abdomen becoming gradually wider to the tip of the abdomen, which is rounded at the outer angle, and emarginate in the middle of the hind margin: feelers five-jointed, short, rather stout, about half as long as the body; first and second joints short and stout; second longer than the first; third much longer, equal to both first and second combined; fourth rather longer than the second, broadest at the tip; fifth about equal in length to the third and fourth combined, subfusiform, contracted a little before the tip: labrum short, pointed: mouth short, dilated before the tip: legs short; feet apparently two-pointed, furnished with two claws.”

a. China.

14. PEMPHIGUS? OLEÆ.

Eriosoma Oleæ, *Leach, Risso, Hist. Nat. des Prin. Prod. de l'Eur. Merid.* v.

Thorax gray: head dirty green: eyes purplish violet-black: antennæ gray: their tips purplish black: abdomen and back inclining to green: legs gray: wings purplish brown: last segment of the abdomen purplish black.

South of Europe.

Genus 5. TETRANEURA.

Tetraneura, *Hartig, Germ. Ent. Zeit.* iii. 366. *Kalt.*
Aphis, p., *Geoff., Reaum., Deg., Von Gleichen.*
Byrsocrypta, *Haliday, Westw.*

1. TETRANEURA ULMI.

Tetraneura Ulmi, *Hartig, Germ. Ent. Zeit.* iii. 366. *Kalt. Mon. Pflanz.* 189, 1, f. 10—12.

Aphis (Tetraneura) Ulmi, *Ratz. Forst. Ins.* iii. 222, pl. 13, f. 2.

Aphis galbarium Ulmi, *Geoff. Ins. Par.* i. 494, 1, pl. 10, f. 3.
Réaumur. Ins. iii. 299, pl. 25, f. 4—7. *Deg. Ins.* iii. 89, 14, pl. 4, f. 15—17. *Von Gleichen, Vers. Gesch. Blattl. Ulm.* i. 21.
Bonnet, Hist. Nat. i. 8, pl. 1, f. 3. *Gmel. Ed. Syst. Nat.* i. 4, 2210, 72.

Tetraneura, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, 484, 536.

Byrsocrypta Ulmi gallarum, *Haliday, Ann. Nat. Hist.* 1839, 189.

Europe.

2. TETRANEURA PALLIDA.

Byrsocrypta pallida, *Haliday, Ann. Nat. Hist.* 1839, 189.

England.

3. TETRANEURA ALBA.

Tetraneura alba, *Ratz. Forst. Ins.* iii. 222, pl. 13, f. 3.

Germany.

4. TETRANEURA NIGRICORNIS.

Tetraneura nigricornis, *Hartig, Jahresb.* iii. 366.

Germany.

5. TETRANEURA? HAMAMELIDIS.

Byrsocrypta hamamelidis, *Fitch, The Senate*, No. 30, 69.

New York.

Genus 6. RHIZOBIUS.

Rhizobius, *Burm. Handb. Ent.* ii. 1, 87. *Hartig, Kalt.*

1. RHIZOBIUS PILOSELLÆ.

Rhizobius Pilosellæ, *Burm. Handb. Ent.* ii. 1, 87, 1. *Kalt. Mon. Pfl.* 208, 1, f. 35.

Rhizobius, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 486, 540.

Germany.

2. RHIZOBIUS PINI.

Rhizobius Pini, *Burm. Handb. Ent.* ii. 1, 87, 2. *Hartig, Forst. Conversat. Lexikon*, 8, 31, 33. *Germ. Ent. Zeit.* iii. 363, pl. 1, f. 11, 12. *Kalt. Mon. Pfl.* 208, 2.

Germany.

3. RHIZOBIUS SUBTERRANEUS.

Rhizobius subterraneus, *Kalt. Mon. Pfl.* 209, 3, f. 35.

Prussia.

Genus 7. RHIZOTERUS.

Rhizoterus, *Hartig, Germ. Ent. Zeit.* iii. 363.

Forda, *Heyden, Kalt.*

1. RHIZOTERUS VACCA.

Rhizoterus vacca, *Hartig, Germ. Ent. Zeit.* iii. 363.

Forda formicaria, *Heyden, Kalt. Mon. Pfl.* 209, 1, f. 33.

Forda, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 486, 541.

Very small, dull yellow from the head to more than half the length, dull green and slightly decreasing in breadth from thence to the tip of the abdomen, which is hardly convex, and has a rim on each side: front hairy, convex: mouth pale yellow, with a black tip, which appears just beyond the tip of the abdomen: feelers and legs slightly hairy: feelers clavate, much more than half the length of the body, pale yellow, brown towards the tips; first and second joints short; third very long; fourth and fifth of moderate length; sixth short, dart-shaped, much narrower and shorter than the fifth. On Sowthistle roots. Length of the body $\frac{1}{2}$ line, or less.

Var.? Broader than long, pale dull green: feelers near half the length of the body: mouth a little shorter than the body, or much more than half its length. The young ones are green, and their mouths are longer than the body. Found by Mr. Hardy, under stones, near Newcastle.

a. England. (In Canada Balsam). Presented by F. Walker, Esq.

b, c. Prussia. Presented by F. Walker, Esq.

2. RHIZOTERUS? ZÆÆ.

Coccus Zææ Maidis, *Léon Dufour*, *Ann. Sci. Nat.* ii. 204, pl. 10, f. 1.

France.

Genus 8. TRAMA.

Trama, *Heyden*, *Mus. Senk.* ii. 293. *Kalt. Mon. Pfl.* 211.
Rhizobius, *Westwood*.

1. TRAMA TROGLODYTES.

Trama troglodytes, *Heyden*, *Mus. Senk.* ii. 293, 7.

Trama Radicis, *Kalt. Mon. Pfl.* i. 211, 1, f. 34.

Trama, *Amyot*, *Ann. Soc. Ent. Fr.* 2me Série, v. 487, 542.

Aphis, &c., *Hill*, *Mag. Nat. Hist.* ii. 104.

Rhizobius Helianthemi, *Westw. Proc. Ent. Soc. Ann. Nat. Hist.* xiv. 453.

White, shining, very plump, nearly elliptical: feelers filiform, less than half the length of the body; first and second joints short; third very long; fourth and two following joints moderately long: eyes dark brown, very small, as is usual in subterranean species: mouth with a brown tip, reaching far beyond the base of the hind legs: oviduct short, with a brown tip: legs moderately long; fore-feet and middle-feet black, short and curved; hind-feet long, pale and straight, their tips brown: the young ones are more narrow and linear. The hind-legs have great freedom of movement, and it often jerks them upright over its head, and the long hind-feet vibrate like feelers. It occasionally, but very rarely, acquires wings.

a—m. England. (In Canada Balsam). From Mr. Walker's collection.

Genus 9. PARACLETUS.

Paracletus, *Heyden, Kalt. Mon. Pflanz.* 212.

1. PARACLETUS CIMICIFORMIS.

Paracletus cimiciformis, *Heyden, Kalt. Mon. Pflanz.* i. 2121.

Paracletus, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v, 487, 543.

Var. ? Pale red, triangular, very narrow in front: feelers one-sixth of the length of the body: nectaries black, level with the surface of the abdomen: legs short. Found by Mr. Hardy, near Newcastle, under stones, with *Schizoneura Corni* and *Rhizotus vacca*.

The winged female. Rib-vein diverging from the fore border beneath the brand, and more abruptly converging to it beyond the base of the fourth vein; first and second veins not extending to the hind border; distance between them at the tips full thrice that at the base; third vein wanting for more than one-third of the length from the rib-vein; distance at the tip between it and the second vein a little less than that between it and its fork, and much less than that between the first and second veins; fourth vein curved near the base, straight towards the tip, much nearer to the fork of the third vein than to the tip of the rib-vein.

a. England. (In Canada Balsam). Presented by F. Walker, Esq.

b. Prussia. Presented by F. Walker, Esq.

Genus 10. SMYNTHURODES.

Smynthuroides, *Westw. Gard. Chron.* 1849 or 1850?

1. SMYNTHURODES BETÆ.

Smynthuroides Betæ, *Westw. Gard. Chron.* 1849 or 1850?

England.

Genus 11. ADELGES.

Adelges, *Vallot*.

Aphis, p., *Deg*.

Chermes, p., *Linn.*, *Fabr.*, *Gmel.*, *Frisch.*, *Schrank*, *Hartig*, (*Germ. Ent. Zeit.* 366, pl. 1, f. 17, 18).

Psylla, p., *Geoff.*, *Kalt.*, *Ratz.*

Eriosoma, p., *Mosley*.

Sacchiphantes, *Curtis*.

1. ADELGES LARICIS.

Chermes Laricis, *Hartig*, *Jahresberichte*, i. 4, 8. *Germ. Zeit. Ent.* iii. 366. *Kalt. Mon. Pflanz.* 194. *Ratz. Forst. Ins.* iii. 202, pl. 13, f. 5.

Laricethus, *Amyot*, *Ann. Soc. Ent. Fr. 2me Série*, v. 485, 538, pl. 7, f. 96, 97.

The White Bug, *Newton*, *Journ. Agric. New Series*, No. 15, 609.

Eriosoma Laricis, *Sir Oswald Mosley*, *Gard. Chron.* i. 828.

Adelges Laricis, *Vallot*.

a—c. England. Presented by F. Walker, Esq.

d—h. England. (In Canada Balsam). From Mr. Walker's collection.

2. ADELGES CORTICALIS.

Chermes corticalis, *Kalt. Mon. Pflanz.* i. 197, 2.

Chermes Strobi, *Hartig*, *Jahresb.* 643. *Ratz. Forst. Ins.* iii. 203.

Chermes Piceæ? *Ratz. Forst. Ins.* iii. 204.

a—k. England. (In Canada Balsam). From Mr. Walker's collection.

3. ADELGES ABIETIS.

Chermes Abietis, *Linn. Syst. Nat.* i. 2, 738, 13. *Faun. Suec.* 1011.

Lach. Lapp. i. 258. *Fl. Lapp.* 218, 347. *It. Gotl.* 180. *Fabr.*

Sp. Ins. ii. 392, 13. *Mant. Ins.* ii. 318, 13. *Ent. Syst.* iv. 223,

13. *Syst. Rhyn.* 305, 13. *Frisch. Ins.* 12, 10, pl. 2, f. 3.

Schrank, Faun. Boic. ii. 1, 143, 1256. *Clus. Pannon.* 20, 21.

Gmel. Ed. Syst. Nat. i. 4, 2213, 13. *Kirby & Spence, Intr.*

Ent. i. 325, iv. 136. *Kalt. Mon. Pflanz.* 200, 3. *Hartig,*

Convers. Lex. 145. *Germ. Zeit.* iii. 366. *Ratz. Ent. Zeit.*

Stett. iv. 204.

Psylla, &c., *Geoff. Ins. Par.* i. 487, 5.

Aphis gallarum Abietis, *Deg. Ins.* iii. 99, 17, pl. 8, f. 1—3. *Burm. Handb. Ent.* ii. 90, 2. *De la Rue, Ent. Forest.* 5, 611.

Adelges gallarum Abietis, *Haliday, Ann. Nat. Hist.* 1839, 190, 65, 66.

Chermes viridis, *Ratz. Forst. Ins.* iii. 201, pl. 12, f. 2.

Elatiptus, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 484, 537.

Sacchiphantes Abietis, *Ruricola, Gard. Chron.* (1844) iv. 831.

a. England. Presented by F. Walker, Esq.

b—n. England. (In Canada Balsam). From Mr. Walker's collection.

4. ADELGES STROBILOBIUS.

Chermes strobilobius, *Kalt. Mon. Pfl.* 203, 4, f. 24.

Europe.

5. ADELGES COCCINEUS.

Chermes coccineus, *Ratz. Forst. Ins.* iii. 200, pl. 12, f. 1. *Stelk. Ent. Zeit.* 1843, 202.

Germany.

6. ADELGES? STROBI.

Eriosoma Strobi, *Fitch, The Senate*, No. 30, 69.

New York.

Genus ——— ?

Chermes Castanæ, *Haldeman, Amer. Journ. Sci. and Art. Second Series*, ix. No. 25, 1850, 108.

“First and third transverse veins normal, second arising from the middle of the first, terminating in the normal position; posterior wings without veins.”

United States.

Genus 12. PHYLLOXERA.

Phylloxera, *Boyer de Fonscol. Ann. Soc. Ent. Fr.* iii., *Hartig, Westw., Kalt., Ratz.*

Vacuna, Heyden.

1. PHYLLOXERA QUERCUS.

Phylloxera Quercûs, *Fonscol. Ann. Soc. Ent. Fr.* iii. 223, pl. 1. f. 4—6, x. 196, 1. *Hartig, Germ. Ent. Zeit.* iii. 45, pl. 1, f. 15, 16.

Vacuna coccinea, Heyden, Mus. Senkenberg. ii. 3, 289.

Phylloxera coccinea, *Kalt. Mon. Pflanz.* 205, 1, f. 30, 32.

Aphis (Phylloxera) coccinea, *Ratz. Forst. Ins.* iii. 223, 39.

Phylloxera, *Amyot, Ann. Soc. Ent. Fr. 2me Série,* v. 485, 539.

a—tt. England. (In Canada Balsam). From Mr. Walker's collection.

Fam. III. COCCIDÆ.

Coccidæ, &c., *Leach, Steph., Curt.*

Gallinsecta, *Latr.*

Coccites et Aleyrodites, *Newman.*

Coccidæ (Monomera) et Aleyrodidæ (Dimera), *Westw.*

Coccina, *Burm.*

Phaceloptera, *De Laporte.*

Scytinelytra (Aleyrodides) et Phytathelgi, *Amyot et Serv.*

Genus 1. ASPIDIOTUS.

Aspidiotus, *Bouché, Naturg. Ins.* 9. *Burm., Curt., Westw.*

Coccus, *Gmel., Stew., Dalm., Curt.*

Diaspis, *Costa, Faun., Regn. Nap. Gallinsetti,* 19.

1. ASPIDIOTUS NERII.

Aspidiotus Nerii, *Bouché, Schadl. Gart. Ins.* 52, 1. *Nat. Gesch. Ins.*

i. 12, 1, pl. 1, f. 1—5. *Burm. Handb. Ent.* ii. 1, 67, pl. 1, f. 10.

Ruricola, Gard. Chron. iii. 588.

Europe.

2. ASPIDIOTUS ROSÆ.

Aspidiotus Rosæ, *Bouché*, *Schadl. Gart. Ins.* 53, 2. *Nat. Gesch. Ins.* i. 14, 2, pl. 1, f. 6. *Burm. Handb. Ent.* ii. 1, 68, 2.

a—d. England. Presented by W. Longman, Esq.

3. ASPIDIOTUS ECHINOCACTI.

Aspidiotus Echinocacti, *Bouché*, *Schadl. Gart. Ins.* 53, 3. *Nat. Gesch. Ins.* i. 15, 3. *Burm. Handb. Ent.* ii. 1, 68, 4, pl. 2, f. 5.

Mexico?

4. ASPIDIOTUS LAURI.

Aspidiotus Lauri, *Bouché*, *Schadl. Gart. Ins.* 53, 4. *Nat. Gesch. Ins.* i. 16, 4, pl. 1, f. 7, 8. *Burm. Handb. Ent.* ii. 1, 68, 3.

5. ASPIDIOTUS PALMARUM.

Aspidiotus Palmarum, *Bouché*, *Nat. Gesch. Ins.* i. 17, 5, pl. 1, f. 15. *Burm. Handb. Ent.* ii. 1, 69, 5.

6. ASPIDIOTUS SALICIS.

Aspidiotus Salicis, *Bouché*, *Ent. Zeit. Stett.* v. 293, 1.

Coccus (Aspidiotus) Salicis, *Ratz. Forst. Ins.* iii. 195, 3, pl. 11, f. 7.

Coccus salicis? *Müll. Fn. Frid.* 31, 300.

Europe.

7. ASPIDIOTUS BROMELIÆ.

Lecanium Bromeliæ, *Bouché*, *Schadl. Gart. Ins.* 49, 2. *Nat. Gesch. Ins.* 20, 2, pl. 1, f. 14. *Kerner, Naturg. C. Brom.* 1778. *Burm. Handb. Ent.* ii. 1, 70, 2.

Coccus Bromeliæ, *Ruricola*, *Gard. Chron.* ii. 1842, 1441.

Aspidiotus Bromeliæ, *Bouché*, *Ent. Zeit. Stett.* v. 293, 2. *Ruricola*, *Gard. Chron.* iii. 1843, 131.

8. ASPIDIOTUS PROTEUS.

Aspidiotus Proteus, *Curt. Ruricola, Gard. Chron.* iii. 1843, 676.

9. ASPIDIOTUS CONCHIFORMIS.

Coccus conchiformis, *Gmel. Ed. Syst. Nat.* i. 4, 2221, 37. *Stew. El. Nat. Hist.* ii. 113.

Aspidiotus conchiformis, *Ruricola, Gard. Chron.* iii. 735.

10. ASPIDIOTUS OSTREÆFORMIS.

Aspidiotus ostreæformis, *Curt. Ruricola, Gard. Chron.* iii. 1843, 459.

11. ASPIDIOTUS LINEARIS.

Coccus arborum linearis, *Modeer, Act. Gothenb.* i. 22, 14. *Geoff. Ins. Par.* i. 509, 17. *Réaum. Ins.* iv. pl. 5, f. 6, 7. *Kirby and Spence, Intr. Ent.* i. 201. *Fitch, The Senate*, No. 30, 69. *Harris, Ins. New Engl.* 201? *Perley, Mass. Agric. Soc.* 1796, 32.

Diaspis linearis, *Costa, Faun. Regn. Nap. Gallinsetti*, 21, 3.
Europe.

12. ASPIDIOTUS CALYPTROIDES.

Diaspis Calyptroides, *Costa, Faun. Regn. Nap. Gallinsetti*, 20, 1.
Italy.

13. ASPIDIOTUS OBLIQUUS.

Diaspis obliquus, *Costa, Faun. Regn. Nap. Gallinsetti*, 21, 2.
Italy.

14. ASPIDIOTUS CRYPTOGRAMUS.

Coccus cryptogramus, *Dalm. Act. Holm.* 1825, 357, 1, pl. 3, f. 1—17.
Harris, Ins. New Engl. 203.

Sweden.

15. ASPIDIOTUS HORDEOLUM.

Coccus hordeolum, *Dalman, Act. Holm.* 1825, 365, 3, pl. 4, f. 1—5.
Sweden.

16. ASPIDIOTUS ——— ?

a. Germany. Presented by F. Walker, Esq.

Genus 2. LECANIUM.

Lecanium, *Illiger, Burm., Ratz.*

Coccus, *p., Linn., Fabr., Geoff., Schæff., Réaum., Sulz., Frisch., Schrank, Gmel., Oliv., Modeer, Berk., Stew., Turt., Shaw, Haworth, Harris, Westw.*

Kermes, *p., Oliv.*

Chermes, *p., Geoffr.*

Calymmata, *Geoffr.*

Calypticus, Group 1. *Monaspidea*; 2. *Polyaspidea*, *Costa.*

1. LECANIUM HESPERIDUM.

Lecanium Hesperidum, *Burm. Handb. Ent* ii. 1, 69, 1, pl. 1, f. 11.

Coccus Hesperidum, *Linn. Syst. Nat.* i. 2, 739, 1. *Faun. Suec.*

1015. *Modeer, Act. Gothenb.* i. 19, 8. *Sedilean et Delahire,*

Mem. Acad. Paris, 1692. *Fabr. Sp. Ins.* ii. 393, 1. *Mant.*

Ins. ii. 318, 1. *Ent. Syst.* iv. 224, 1. *Syst. Rhyn.* 306, 46, 1.

Geoff. Ins. Par. i. 505, 2. *Schæff. Elem.* pl. 48. *Act. Paris.*

1692, 14, pl. 14. *Réaum. Ins.* iv. pl. 1. *Müll. Fn. Frid.* 31,

297. *Sulz. Ins.* pl. 12, f. 81. *Frisch. Ins.* xii. pl. 12. *Gmel.*

Ed. Syst. Nat. i. 4, 22, 15, 1. *Harris, Ins. New Engl.* 199.

Schrank, Faun. Boic. ii. 1, 143, 1257. *Enc. Méth.* pl. 119,

f. 1—4. *Berk. Syn.* i. 122. *Stew. El. Nat. Hist.* ii. 113.

Turt. Syst. Nat. ii. 712. *Shaw, Gen. Zool.* vi. 190, pl. 60,

f. *sup.* *Haworth, Ent. Trans.* i. 307. *Fonscol. Ann. Soc.*

Ent. Fr. iii. 208, 7. *Goureaux, Ann. Soc. Ent. Fr.* 2me Série,

11. *Ruricola, Gard. Chron.* iii. 459, 796.

Calypticus hesperidum, *Costa, Fauna del regno di Napoli, Gallinsetti*, 8.

a—d. Presented by F. Walker, Esq.

e, f. ——— ?

2. LECANIUM PERSICÆ.

Lecanium Persicæ, *Burm. Handb. Ent.* ii. 1, 71, 3. *Bouché, Ent. Zeit. Stett.* v. 293, 1.

Coccus Persicæ, *Modeer, Act. Gothenb.* i. 28, 22. *Fabr. Ent. Syst. Suppl.* 545, 5. *Syst. Rhyn.* 307, 5. *Schrank, Faun. Boic.* ii. 1, 144, 1262. *Geoffr. Ins. Par.* i. 506, 5. *Réaum. Ins.* iv. pl. 2, f. 4, 5. *Gmel. Ed. Syst. Nat.* i. 4, 2220, 31. *Stew. El. Nat. Hist.* ii. 113. *Bingley, Anim. Biog.* iii. 197. *Dum. Cons. Gén.* pl. 39, f. 4. *Fonscol. Ann. Soc. Ent. Fr.* iii. 207, 6. *Bouché, Schadl. Ins.* 59—5. *Ratz. Forst. Ins.* iii. 191. *Goureau, Ann. Soc. Ent. Fr. 2me Série*, ii.

Kermes Persicæ, *Enc. Méth. Hist. Nat. Ins.* pl. 119, f. 1.

Coccus Persicorum, *Ræm. Gen.* pl. 11, f. 9. *Shaw, Gen. Zool.* vi. pl. 60, f. inf.

Coccus costatus, *Schrank, Ins. Aust.* 589.

a—d. England.

3. LECANIUM ILICIS.

Lecanium Ilicis, *Burm. Handb. Ent.* ii. 1, 71, 4.

Coccus Ilicis, *Linn. Syst. Nat.* ii. 740, 6. *Modeer, Act. Gothenb.* i. 24, 19. *Garid. Aixens.* 250, pl. 23. *Geoffr. Mat. Med.* ii. 782. *Strobelberger, Tract. de Coc.* 1620? *Marsilli, Osserv. Nat. Kerm.* 1711. *Lederm. Micros.* 72, pl. 36. *Fabr. Sp. Ins.* ii. 393, 5. *Mant. Ins.* ii. 318, 6. *Ent. Syst.* iv. 225, 6. *Syst. Rhyn.* 308, 7. *Réaum. Ins.* iv. pl. 5, f. 1. *Brandt, v. Ratz. Med. Zool.* ii. 223. *Gmel. Ed. Syst. Nat.* i. 4, 2216, 6. *Dillon, Travels through Spain*, 18—31, pl. *Canals, Diss. Kerm.* 1768. *Bochart, Hierozoic.* ii. 4, 27. *Truchet, Traité compl. du Kermes*, 101. *Beckmann, Hist. Invent.* ii. 171—205. *Bancroft, Perm. Colours*, i. 393. *Parkhurst, Heb. Lex. Kirby and Spence, Intr. Ent.* 5 ed. i. 319. *Fonscol. Ann. Soc. Ent. Fr.* iii. 210, 10. *Westw. Loudon, Arboretum Brit.* 1910.

Chermes Ilicis, *Oliv. Enc. Méth. Hist. Nat. Ins.*

4. LECANIUM QUERCUS.

Coccûs Quercus, *Linn. Syst. Nat.* ii. 740, 5. *Faun. Suec.* 1016. *Fabr. Sp. Ins.* ii. 393, 4. *Mant. Ins.* ii. 318, 5. *Ent. Syst.* iv. 225, 5. *Syst. Rhyn.* 307, 6. *Gmel. Ed. Syst. Nat.* i. 4, 2216, 5. *Stew. El. Nat. Hist.* ii. 113. *Turt. Syst. Nat.* ii. 712. *Oliv. Enc. Méth.* pl. 119, f. 5—8. *Réaum. Ins.* iv. pl. 6, f. 1—4.

Chermes Quercûs, *Geoffr. Ins. Par.* i. 508, 13.

Coccus Roboris? *Schrank, Faun. Boic.* ii. 1, 146, 2.

Coccus ———? *Audouin, Ann. Soc. Ent. Fr.* v.

Europe.

5. LECANIUM CESTRI.

Coccus Cestri, *Bouché, Naturg. Insect.* 1.

6. LECANIUM VITIS.

Coccus Vitis, *Linn. Syst. Nat.* ii. 241, 16. *Fabr. Sp. Ins.* ii. 395, 18. *Mant. Ins.* ii. 319, 25. *Ent. Syst.* iv. 227, 23. *Syst. Rhyn.* 310, 24. *Modeer, Act. Gothenb.* i. 20, 9. *Geoffr. Ins. Par.* i. 506, 6. *Act. Bonon.* ii. 279, pl. 284. *Galiatus, Comment. Bonon.* ii. 2, 279—283. *Réaum. Ins.* iv. pl. 6, f. 5—7. *Schrank, Ins. Austr.* 595. *Faun. Boic.* ii. 1, 1261, 144. *Gmel. Ed. Syst. Nat.* i. 4, 2218, 16. *Haworth, Ent. Trans.* i. 307. *Oliv. Enc. Méth. Ins.* pl. 120, f. 13—16. *Harris, Ins. New. Engl.* 205? *Ratz. Forst. Ins.* iii. 191.

Calypticus spumousus, *Costa, Faun. Regn. Nap. Gallinsetti*, 10, 2.
Coccus of the vine, *Rusticus, Ent. Mag.* ii. 510.

a. Germany. Presented by F. Walker, Esq.

7. LECANIUM OLEÆ.

Coccus Oleæ, *Latreille. Oliv. Enc. Méth. Ins. Toulouzan et Négrel. Fonscol. Ann. Soc. Ent. Fr.* iii. 206, 5, ix. 109, 6. *Goureau, Ann. Soc. Ent. Fr. 2me Série*, ii. *Costa, Osserrazioni sugl. Insetti del Ulmo e delle Olive, Reale Istituto d' Incoraggiamento alle Scienze Naturali di Napoli*, iii.

S. Europe.

8. LECANIUM TILIÆ.

Coccus Tiliæ, *Linn. Syst. Nat.* ii. 741, 11. *Faun. Suec.* 1021. *Müll. Fn. Frid.* 31, 299. *Modeer, Act. Gothenb.* i. 30, 25. *Fabr. Sp. Ins.* ii. 394, 10. *Mant. Ins.* ii. 319, 12. *Ent. Syst.* iv. 226, 14. *Syst. Rhyn.* 309, 15. *Réaum. Ins.* iv. pl. 3, f. 1—3. *Geoffr. Ins. Par.* i. 507, 9. *Gmel. Ed. Syst. Nat.* i. 4, 2217, 11. *Stew. El. Nat. Hist.* ii. 113. *Turt. Syst. Nat.* ii. 713. *Oliv. Enc. Méth.* pl. 120, f. 9—11.

Coccus Tiliæ? (New York), *Fitch, The Senate*, No. 30, 69.

Europe.

9. LECANIUM CORYLI.

Coccus Coryli, *Linn. Syst. Nat.* ii. 741, 10. *Faun. Suec.* 1026. *Modeer, Act. Gothenb.* i. 29, 23. *Réaum. Ins.* iv. pl. 3, f. 4—10. *Müll. Fn. Frid.* 31, 298. *Geoffr. Ins. Par.* i. 507, 10. *Fabr. Sp. Ins.* ii. 394, 7. *Mant. Ins.* ii. 319, 9. *Ent. Syst.* iv. 225, 11. *Syst. Rhyn.* 308, 12. *Gmel. Ed. Syst. Nat.* i. 4, 2217, 10. *Stew. El. Nat. Hist.* ii. 113. *Turt. Syst. Nat.* ii. 713. *Oliv. Enc. Méth.* pl. 120, f. 2—8.

Calypticus lævis, *Costa, Faun. Regn. Nap. Gallinsetti*, ii. 3.

Europe.

10. LECANIUM RORISMARINIS.

Coccus Rorismarini, *Fonscol. Ann. Soc. Ent. Fr.* iii. 217, 18, pl. 3, A. f. 10—12.

France.

11. LECANIUM BUXI.

Coccus Buxi, *Fonscol. Ann. Soc. Ent. Fr.* iii. 218, 19, pl. 3, A. f. 13.

12. LECANIUM AONIDUM.

Coccus Aonidum, *Linn. Syst. Nat.* ii. 739, 2. *Fabr. Sp. Ins.* ii. 393, 2. *Mant. Ins.* ii. 318, 2. *Ent. Syst.* iv. 224, 2. *Syst. Rhyn.* 307, 2. *Modeer, Act. Gothenb.* i. 30. 26. *Gmel. Ed. Syst. Nat.* i. 4, 2215, 2.

Asia.

13. LECANIUM BETULÆ.

Coccus Betulæ, *Linn. Syst. Nat.* ii. 740, 7. *Faun. Suec.* 1017. *Fabr. Sp. Ins.* ii. 394, 8. *Mant. Ins.* ii. 319, 10. *Ent. Syst.* iv. 226, 12. *Syst. Rhyn.* 308, 13. *Modeer, Act. Gothenb.* i. 23, 16. *Gmel. Ed. Syst. Nat.* i. 4, 2216, 7. *Berk. Syn.* i. 122. *Stew. El. Nat. Hist.* ii. 113. *Turt. Syst. Nat.* ii. 713.

Europe.

14. LECANIUM CARPINI.

Coccus Carpinii, *Linn. Syst. Nat.* ii. 740, 8. *Faun. Suec.* 1018. *Fabr. Sp. Ins.* ii. 394, 9. *Mant. Ins.* ii. 319, 10. *Ent. Syst.*

iv. 226, 13. *Syst. Rhyn.* 309, 14. *Modeer, Act. Gothenb.* i. 29, 24. *Gmel. Ed. Syst. Nat.* i. 4, 2216, 8. *Stew. El. Nat. Hist.* ii. 113.

Coccus (Cecanium) *Carpini, Ratz. Forst. Ins.* iii. 194, pl. 11, f. 6.
Europe.

15. LECANIUM RUSCI.

Coccus Rusci, Linn. Syst. Nat. ii. 741, 12. *Fabr. Sp. Ins.* ii. 394, 11. *Mant. Ins.* ii. 319, 13. *Ent. Syst.* iv. 226, 15. *Syst. Rhyn.* 309, 16. *Modeer, Act. Gothenb.* i. 31, 29. *Gmel. Ed. Syst. Nat.* i. 4, 2217, 12. *Column. Purp.* 16, pl. 17. *Guionann. Adv.* i. 60, pl. 3, f. 27. *Klein, Ostr.* 116. *Bocc. Mus.* pl. 107, f. 23, h. h.

S. Europe.

16. LECANIUM SALICIS.

Coccus Salicis, Linn. Faun. Suec. 1022. *Modeer, Act. Gothenb.* i. 21, 12. *Gmel. Ed. Syst. Nat.* i. 4, 2218, 15. *Schrank, Faun. Boic.* ii. 1, 143, 1259. *Stew. El. Nat. Hist.* ii. 113.

Coccus Salicis, Macquart, Amyot, Ann. Soc. Ent. Fr. 2me Série, vii. 50, pl. 2, 111. *Bull. Ent.* 75. *Toulouzon et Négrel.*

Coccus Salicis? (New York), *Fitch, The Senate,* No. 30, 69.

Europe.

17. LECANIUM ALNI.

Coccus Alni, Modeer, Act. Gothenb. i. 23, 17. *Gmel. Ed. Syst. Nat.* i. 4, 2221, 41. *Schrank, Faun. Boic.* ii. 1, 144, 1259.

Europe.

18. LECANIUM RACEMOSUM.

Lecanium racemosum, Ratz. Forst. Ins. iii. 192, 1, pl. 11, f. 8.

Coccus racemosus, Ratz. Ent. Zeit. Stett. iv. 204.

Germany.

19. LECANIUM CAMBII.

Lecanium Cambii, Ratz. Forst. Ins. iii. 194, 2.

Germany.

20. LECANIUM UVÆ-URSI.

Coccus Uvæ-Ursi, *Linn. Syst. Nat.* ii. 742, 19. *Fabr. Sp. Ins.* ii. 394, 14. *Mant. Ins.* ii. 319, 17. *Modeer, Act. Gothenb.* i. 49, 37. *Gmel. Ed. Syst. Nat.* i. 4, 2219, 19. *Stew. El. Nat. Hist.* ii. 113. *Bancroft, Perm. Colours,* i. 401. *Kirby and Spence, Intr. Ent.* i. 321.

Coccus Arbuti? *Fabr. Ent. Syst.* iv. 226, 19. *Syst. Rhyn.* 310, 20. Europe.

21. LECANIUM CRATÆGI.

Coccus Cratægi, *Linn. Syst. Nat.* ii. 742, 21, 20. *Fabr. Sp. Ins.* ii. 395, 16. *Mant. Ins.* ii. 319, 19. *Ent. Syst.* iv. 127, 21. *Syst. Rhyn.* 310, 22. *Modeer, Act. Gothenb.* i. 20, 10. *Réaum. Ins.* iv. pl. 6, f. 11, 12.

Coccus Oxyacanthæ, *Gmel. Ed. Syst. Nat.* i. 4, 2219, 21. *Stew. El. Nat. Hist.* ii. 113. *Oliv. Enc. Méth. Ins. Fonscol. Ann. Soc. Ent. Fr.* iii. 214, 15.

22. LECANIUM BERBERIDIS.

Coccus Berberidis, *Schrank, Faun. Boic.* ii. 1, 146, 1270. Bavaria.

23. LECANIUM PICEÆ.

Coccus Piceæ, *Schrank, Faun. Boic.* ii. 1, 146, 1271. Bavaria.

24. LECANIUM ASARI.

Coccus Asari, *Schrank, Faun. Boic.* ii. 1, 145, 1265. Bavaria.

25. LECANIUM RUBI.

Coccus Rubi, *Schrank, Faun. Boic.* ii. 1, 144, 1260. Bavaria.

26. LECANIUM EPIDENDRI.

Lecanium Epidendri, *Bouché, Ent. Zeit. Stett.* v. 293, 5.

27. LECANIUM PRENANTHIS.

Coccus Prenanthis, *Schrank, Faun. Boic.* ii. 1, 147, 1273.
Bavaria.

28. LECANIUM ACERIS.

Lecanium Aceris, *Bouché, Ent. Zeit. Stett.* v. 293, 4.

Coccus Aceris, *Modeer, Act. Gothenb.* i. 21, 13. *Geoffr. Ins. Par.* i. 509, 18. *Fabr. Ent. Syst.* iv. 225, 7. *Syst. Rhyn.* 308, 10. *Gmel. Ed. Syst. Nat.* i. 4, 2221, 38. *Schrank, Faun. Boic.* ii. 1, 147, 1274. *Curt. Brit. Ent.* 717. *Westw. Intr. Ent.* ii. 446.

a. ——— ?

29. LECANIUM AMYGDALI.

Coccus Amygdali, *Schrank, Faun. Boic.* ii. 1, 147, 1275.
Coccus Persicæ, *Schrank, Ins. Aust.* 586.
Germany.

30. LECANIUM PADI.

Lecanium Padi, *Schrank, Faun. Boic.* ii. 1, 145, 1267.
Bavaria.

31. LECANIUM XYLOSTEI.

Coccus Xylostei, *Schrank, Faun. Boic.* ii. 1, 145, 6.
Bavaria.

32. LECANIUM JUGLANDIS.

Lecanium Juglandis, *Bouché, Ent. Zeit. Stett.* v. 293, 3.
Germany.

33. LECANIUM ULMI.

Coccus Ulmi, *Linn. Syst. Nat.* ii. 740, 9. *Faun. Suec.* 1019. *Fabr. Sp. Ins.* ii. 393, 6. *Mant. Ins.* ii. 319, 8. *Ent. Syst.* iv. 225,

10. *Syst. Rhyn.* 308, 11. *Réaum. Ins.* iv. 69, pl. 5, f. 5—7. *Modeer, Act. Gothenb.* i. 27, 21. *Gmel. Ed. Syst. Nat.* i. 4, 2217, 9. *Geoffr. Ins.* i. 507, 8. *Deg. Ins.* vi. 436, 1, pl. 28, f. 7. *Schrank, Faun. Boic.* ii. 1, 145, 1264. *Stew. El. Nat. Hist.* ii. 113. *Turt. Syst. Nat.* ii. 713. *Oliv. Enc. Méth. Ins.* *Latr. Mag. Encycl.* ii. 1796. *Fonscol. Ann. Soc. Ent. Fr.* iii. 215, 16. *De la Rue, Ent. Forest.*

Europe.

34. LECANIUM PYRI.

Coccus Pyri, *Schrank, Faun. Boic.* ii. 1, 145, 1263.

Bavaria.

35. LECANIUM PURPURATUM.

Coccus purpuratus, *Dalm. Act. Holm.* 1825, 363, 2, pl. 3, f. 18—21.

Sweden.

36. LECANIUM HEMICRYPHUM.

Coccus hemicryphus, *Dalm. Act. Holm.* 1825, 369, 6, pl. 4, f. 18—27.

Sweden.

37. LECANIUM GIBBERUM.

Coccus gibber, *Dalm. Act. Holm.* 1825, 366, 4, pl. 4, f. 6—12.

Sweden.

38. LECANIUM CYPRÆOLA.

Coccus cypræola, *Dalm. Act. Holm.* 1825, 367, 5, pl. 4, f. 13—17.

Sweden.

39. LECANIUM CORNI.

Lecanium Corni, *Bouché, Ent. Zeit. Stett.* v. 293, 2.

Germany.

40. LECANIUM TESTUDO.

Coccus testudo, *Curt. Ruricola, Gard. Chron.* 1843, iii. 443.

England.

41. LECANIUM PATELLEFORMIS.

Coccus patellæformis, *Curt. Ruricola*, *Gard. Chron.* 1843, iii. 517.
England.

42. LECANIUM? MYRICÆ.

Coccus Myricæ, *Linn. Syst. Nat.* ii. 741, 13. *Fabr. Mant. Ins.* ii. 319, 14. *Ent. Syst.* iv. 226, 16. *Syst. Rhyn.* 309, 17. *Modeer, Act. Goth.* i. 31, 27. *Gmel. Ed. Syst. Nat.* i. 4, 31, 27.
Cape.

43. LECANIUM? CAPRÆÆ.

Coccus Caprææ, *Linn. Syst. Nat.* ii. 741, 14. *Fabr. Sp. Ins.* ii. 394, 12. *Mant. Ins.* ii. 319, 15. *Ent. Syst.* iv. 226, 17. *Syst. Rhyn.* 309, 18. *Modeer, Act. Goth.* i. 22, 15. *Deg. Ins.* vi. 440, 2, pl. 28, f. 13. *Gmel. Ed. Syst. Nat.* i. 4, 2218, 14. *Stew. El. Nat. Hist.* ii. 113. *Turt. Syst. Nat.* ii. 713. *Fonscol. Ann. Soc. Ent. Fr.* iii. 213, 13.
Chermes Caprææ, *Oliv. Enc. Méth. Ins.*
Europe.

44. LECANIUM? HYPERICONIS.

Coccus Hypericonis, *Pallas, It.* i. 21. *Gmel. Ed. Syst. Nat.* i. 4, 2219, 25.
Russia.

45. LECANIUM? PILOSELLÆ.

Coccus Pilosellæ, *Linn. Syst. Nat.* ii. 742, 18. *Faun. Suec.* 1024. *Act. Upsal.* 1742, 54, 2. *Fabr. Sp. Ins.* ii. 394, 13. *Mant. Ins.* ii. 319, 16. *Ent. Syst.* iv. 226, 18. *Syst. Rhyn.* 309, 19. *Modeer, Act. Goth.* i. 49, 36. *Müll. Fn. Frid.* 31, 302. *Sim. Paul. Quadr.* 113. *Act. Upsal.* 1742, 54, pl. 2. *Gmel. Ed. Syst. Nat.* i. 4, 2219, 18. *Stew. El. Nat. Hist.* ii. 113.
Sweden.

46. LECANIUM? SERRATULÆ.

Coccus Serratulæ, *Fabr. Sp. Ins.* ii. 395, 17. *Mant. Ins.* ii. 319, 20.
Ent. Syst. iv. 227, 22. *Syst. Rhyn.* 310, 23. *Gmel. Ed. Syst.*
Nat. i. 4, 2220, 26. *Stew. El. Nat. Hist.* ii. 113. *Turt. Syst.*
Nat. ii. 714.

England.

47. LECANIUM? ZOSTERÆ.

Coccus Zosteræ, *Fabr. Sp. Ins.* ii. 395, 19. *Mant. Ins.* ii. 319, 22.
Ent. Syst. iv. 227, 24. *Syst. Rhyn.* 310, 25. *Gmel. Ed. Syst.*
Nat. i. 4, 2220, 27.

Shores of the Baltic.

48. LECANIUM? LIRIODENDRI.

Coccus Liriodendri, *Hamburg, Mag.* xii. 1, 24. *Gmel. Ed. Syst.*
Nat. i. 4, 2220, 28.

49. LECANIUM? CARICÆ.

Coccus Caricæ, *Fabr. Ent. Syst.* iv. 225, 8. *Syst. Rhyn.* 308, 9.
Fonscol. Ann. Soc. Ent. Fr. iii. 205, 4, pl. 3, A. f. 4.

Coccus Ficus-Caricæ, *Enc. Méth. Ins. Bernard, Mém. Fig. Acad.*
Marseille, 1773, 89, pl. 1, f. 14—21.

France.

50. LECANIUM? DIOSMATIS.

Coccus Diosmatis, *Modeer, Act. Gothenb.* i. 21, 11. *Gmel. Ed.*
Syst. Nat. i. 4, 2221, 40.

Cape.

51. LECANIUM? UVA.

Coccus Uva, *Modeer, Act. Gothenb.* i. 32, 30. *Gmel. Ed. Syst.*
Nat. i. 4, 2222, 42.

Sweden.

52. LECANIUM? ABIETIS.

Coccus Abietis, *Modeer, Act. Gothenb.* i. 27, 20. *Geoff. Ins. Par.* i. 507, 7. *Gmel. Ed. Syst. Nat.* i. 4, 2221, 32. *Schrank, Beytr. zur Naturg.* 485.

Coccus Arborum, *Schrank, Ins. Austr.* 585.

Coccus Pineti, *Schrank, Faun. Boic.* ii. 1, 146, 1269.

Europe.

53. LECANIUM? SPURIUM.

Coccus spurius, *Modeer, Act. Gothenb.* i. 43, 32. *Gmel. Ed. Syst. Nat.* i. 4, 2222, 43.

Sweden.

54. LECANIUM? ATERRIMUM.

Calypticus aterrimus, *Costa, Faun. Regn. Nap. Gallinsetti*, ii. 4.
Naples.

55. LECANIUM? RADIATUM.

Calypticus radiatus, *Costa, Faun. Regn. Nap. Gallinsetti*, 12,
4 bis.

Naples.

56. LECANIUM? TESTUDINEUM.

Calypticus testudineus, *Costa, Faun. Regn. Nap. Gallinsetti*, 12, 5.
Group 2. Polyaspidea.

Naples.

57. LECANIUM? FASCIATUM.

Calypticus fasciatus, *Costa, Faun. Regn. Nap. Gallinsetti*, 14, 6.

Naples.

58. *LECANIUM COFFEEÆ?*

Ferrugineum, depressum, squamiforme, subrotundum, transversè sulcatum.

Ferruginous, flat, scale-like, almost round, with transverse ridges. Length of the body 1 line.

a—ff. Ceylon. Presented by Prof. Goodsir.

Destroys the Coffee Plantations in Ceylon.

59. *LECANIUM CAPENSE.*

Piceum, transversum, conchiforme, transversè striatum.

Conchiform, pitchy, a little broader than long, with transverse striæ, which are parallel to the broader side. Breadth 1 line.

a. Algoa Bay. Above 200 specimens on bark. Presented by Dr. Pereira.

60. *LECANIUM AUSTRALE.*

Rufum, ellipticum, transversè rugosum.

Red, elliptical, transversely rugose. Length of the body $1\frac{1}{2}$ line.

a. Van Diemen's Land. Presented by the Rev. T. Ewing.

61. *LECANIUM ——— ?*

a—c. ——— ?

Genus 3. *COCCUS.*

Coccus, Linn., Fabr., Modeer, Réaum., Deg., Geoff. Schrank, Shaw, Latr., Gmel., Kirby & Spence, Burm., Bouché.

Diaprostocetus, p., Costa, olim.

Dactylopius, p., Costa, Faun. Regn. Nap. Gallinsetti, 15.

Pseudococcus, Westw.

Trechorys, Curtis.

1. COCCUS CACTI.

Coccus Cacti, Linn. *Syst. Nat.* ii. 742, 22. *Modeer, Act. Gothenb.* i. 44, 33. *Brown, Jamaica*, 435. *Réaumur, Ins.* iv. pl. 7, f. 11, 12. *Deg. Ins.* vi. 447, 1, pl. 80, f. 12, 14. *Act. Angl.* 1762. *Hernand. Mex.* 78. *Sloane, Jam.* ii. 153. *Præf.* pl. 9. *Petiv. Gazoph.* iii. pl. 1, f. 5. *Rausch, Hist. Nat. Coch.* pl. 1, f. 1—5. *Fabr. Sp. Ins.* ii. 395, 19. *Mant, Ins.* ii. 319, 24. *Ent. Syst.* iv. 227, 26. *Syst. Rhyn.* 311, 27. *Gmel. Ed. Syst. Nat.* i. 4, 2220, 22. *Shaw, Gen. Zool.* vi. 191, pl. 61. *Bartram, Trav. Carol. and Florida.* *Richter, Tract. Phys. Coch.* 1701. *Melchior van Ruyscher, Nat. Hist. Coch.* 1729. *Breyne, Hist. Nat. Coc.* 1739. *Bosc. Diss. Coch.* 1739. *Schulze, de Gran. Ker. et Coch.* *Cartheuser, Verm. Stucke*, §c. 1759. *Anderson, Letter on Coch. Ins.* 1773, 1775. *Asiatic Researches, Alzale, Mem. Coch.* 1795. *Jameson, Edin. New Phil. Journ.* iii. 3, 195. *Réaumur, Ins.* iv. 88, pl. 7, f. 11—19. *Brandt v. Ratz. Med. Zool.* ii. 201, pl. 26, f. 6—12. *Thiery de Menonville de la Coch.*, §c. 1787. *Humb. Political Essay, New Spain*, iii. 72, 79. *Burm. Handb. Ent.* ii. 1, 72, 1, pl. 2, f. 1. *l'Herminier, Ann. Soc. Ent. Fr.* vi. 507. *Audouin, Ann. Soc. Ent. Fr.* vi. 67, viii., x. 149. *Curtis, Bot. Mag. No. 6, New Series*, pl. 2742, f. 8, 11. *Bancroft, Perm. Colours*, i. 413. *Kirby & Spence, Intr. Ent.* i. 321.

a—d. St. John's Bluff, E. Florida. Presented by E. Doubleday, Esq.

2. COCCUS ADONIDUM.

Coccus Adonidum, Linn. *Syst. Nat.* i. 2, 740, 4. *Faun. Suec.* i. 1169. *Lederm. Microsc.* 1762, pl. 9. *Fabr. Sp. Ins.* ii. 393, 3. *Mant. Ins.* ii. 318, 4. *Ent. Syst.* iv. 224, 4. *Syst. Rhyn.* 307, 4. *Geoff. Ins. Par.* i. 511, 1. *Modeer, Act. Gothenb.* i. 48, 34. *Gmel. Ed. Syst. Nat.* i. 4, 2215, 4. *Shaw, Gen. Zool.* vi. 190. *Haworth, Ent. Trans.* i. 308. *Bouché, Schadl. Gart. Ins.* 51. *Burm. Handb. Ent.* ii. 1, 74, 2, pl. 2, f. 2.

Trechocorys Adonidum, Curt. *Ruricola, Gard. Chron.* (1843) iii. 443.

a—d. England. Presented by F. Walker, Esq.

3. COCCUS MANNIPARUS.

Coccus manniparus, *Ehrenberg, Sym. Phys.* i. pl. 10. *Chavannes, Bull. Soc. Sci. Nat. Cant. Vaud. Ann. Soc. Ent. Fr. 2me Série*, vi. 145, 3. *Burm. Handb. Ent.* ii. 1, 74, 3.

Mount Sinai.

4. COCCUS FRAXINI.

Coccus Fraxini, *Chavannes, Ann. Soc. Ent. Fr. 2me Série*, vi. 143.
South of Europe.

5. COCCUS LACCA.

Coccus lacca, *Kerr, Phil. Trans.* 1781, 374, f. a, b. *Norbury, Phil. Trans.* 1791, 1792, 229. *Brandt & Ratz. Med. Zool.* ii. 226, pl. 26, f. 13, 14. *Roxburgh, Chermes Lacca, Phil. Trans.* lxxxii. *Virey, Rech. Ins. Gomme-laque, Journ. Pharm.* 1810. *Lesser*, ii. 165. *Bancroft, Perm. Col.* ii. 20, 49. *Kirby & Spence. Intr. Ent.* i. 324. *Burm. Handb. Ent.* ii. 1, 75, 4.

Coccus ficus, *Fabr. Mant. Ins.* ii. 319, 7. *Ent. Syst.* iv. 225. 7. *Syst. Rhyn.* 308, 8. *Gmel. Ed. Syst. Nat.* i. 4, 2218, 23.

East Indies.

6. COCCUS PICRIDIS.

Coccus Picridis, *Fonscol. Ann. Soc. Ent. Fr.* iii. 201, 1, pl. 3, A, f. 1.
Coccus hirticornis, *Fonscol. Ann. Soc. Ent. Fr.* iii. 203, 2, pl. 3. A. f. 2, mas. ?

France.

7. COCCUS MAMILLARIÆ.

Coccus Mamillariæ, *Bouché, Ent. Zeit. Stett.* v. 293, 2.
Germany.

8. COCCUS LILIACEORUM.

Coccus liliaceorum, *Bouché, Ent. Zeit. Stett.* v. 293, 1.
Germany.

9. COCCUS TULIPARUM.

Coccus Tuliparum, *Bouché, Ent. Zeit. Stett.* v. 293, 2.
Germany.

10. COCCUS POTERII.

Coccus Poterii, *Raii, Hist. Plant.* i. 401. *Kirby & Spence, Intr. Ent.* i. 320.

England.

11. COCCUS ALCHIMILLÆ.

Coccus Alchimillæ? *Berger, de Alch. supina et Coc.* 1748.

12. COCCUS PSIDII.

Coccus Psidii, *Charannes, Bull. Soc. Sci. Nat. Cant. Vaud. Ann. Soc. Ent. Fr. 2me Série,* vi. 139, 1.

Brazil.

13. COCCUS CASSIÆ.

Coccus Cassiæ, *Chavannes, Bull. Soc. Sci. Nat. Cant. Vaud. Ann. Soc. Ent. Fr. 2me Série,* vi. 141, 2.

Brazil.

14. COCCUS FARINOSUS.

Coccus farinosus, *Deg. Ins.* vi. 442, 3, pl. 38, f. 16, 17. *Modeer, Act. Gothenb.* i. 50, 38. *Gmel. Ed. Syst. Nat.* i. 4, 2220, 29.

Sweden.

15. COCCUS CAPENSIS.

Coccus capensis, *Linn. Syst. Nat.* ii. 740, 4. *Amæn. Acad.* vi. 401, 47. *Fabr. Mant. Ins.* ii. 318, 3. *Ent. Syst.* iv. 224, 3. *Syst. Rhyn.* 307, 3. *Modeer, Act. Gothenb.* i. 31, 28. *Gmel. Ed. Syst. Nat.* i. 4, 2215, 3.

Cape.

16. COCCUS VARIEGATUS.

Coccus variegatus, *Geoff. Ins. Par.* i. 508, 12. *Réaum. Ins.* iv. pl. 5, f. 3, a. *Gmel. Ed. Syst. Nat.* i. 4, 2221, 34. *Stew. El. Nat. Hist.* ii. 113. *Fonscol. Ann. Soc. Ent. Fr.* iii. 210, 9.

Europe.

17. COCCUS MESPILI.

Coccus Mespili, *Geoff. Ins. Par.* i. 508, 16. *Gmel. Ed. Syst. Nat.* i. 4, 2221, 36. *Stew. El. Nat. Hist.* ii. 113. *Oliv. Enc. Méth. Ins.*

Europe.

18. COCCUS QUERCUS.

Coccus Quercus, *Modeer, Act. Gothenb.* i. 24, 18. *Geoff. Ins. Par.* i. 507, 11. *Réaum. Ins.* iv. pl. 5, f. 2. *Burm. Handb. Ent.* ii. 1, 71, 5.

Coccus fuscus, *Gmel. Ed. Syst. Nat.* i. 4, 2221, 33. *Stew. El. Nat. Hist.* ii. 113. *Audouin, Ann. Soc. Ent. Fr.* x. 145?

Var. ? *Coccus lanatus*, *Geoff. Ins. Par.* i. 508, 14. *Gmel. Ed. Syst. Nat.* i. 4, 2221, 35.

Eriosoma Quercus ? *Sir Oswald Mosley, Gard. Chron.* i. 828.

a, b. England. Presented by F. Walker, Esq.

19. COCCUS LANIGER.

Coccus laniger, *Geoff. Ins. Par.* i. 512, 3. *Réaum. Ins.* iv. pl. 7, f. 1, 2, 6, 9. *Gmel. Ed. Syst. Nat.* i. 4, 2221, 39.

Europe.

20. COCCUS FRAGARIÆ.

Coccus Fragariæ, *S. G. Gmel. It.* i. 205, 312. *Phil. Trans.* 1765, 91, pl. 10. *Gmel. Ed. Syst. Nat.* i. 4, 2219, 24. *Stew. El. Nat. Hist.* ii. 113, *Turt. Syst. Nat.* ii. 715.

Coccus Potentillæ, *Meyer, Act. Soc. Priv. Boh.* iv. 152, 184.

Europe.

21. COCCUS ? PHALARIDIS.

Coccus Phalaridis, *Linn. Syst. Nat.* ii. 742, 20. *Faun. Suec.* 1026.
Fabr. Sp. Ins. ii. 395, 15. *Mant. Ins.* ii. 319, 18. *Ent. Syst.*
 iv. 226, 20. *Syst. Rhyn.* 310, 21. *Modeer, Act. Gothenb.* i. 48.
 35. *Gmel. Ed. Syst. Nat.* i. 4, 2219, 20. *Berk. Syn.* i. 122.
Stew. El. Nat. Hist. ii. 113. *Turt. Hist. Nat.* ii. 714.

Coccus graminis, *Geoff. Ins. Par.* i. 512, 2, pl. 10, f. 15.

Coccus graminum? *Oliv. Enc. Méth.* pl. 120, f. 12.

Coccus Radicum graminis? *Fonscol. Ann. Soc. Ent. Fr.* iii. 212,
 12.

Europe.

22. COCCUS FIMBRIATUS.

Coccus fimbriatus, *Fonscol. Ann. Soc. Ent. Fr.* iii. 209, pl. 3, A.
 f. 7.

S. France.

23. COCCUS FESTUCÆ.

Coccus Festucæ, *Fonscol. Ann. Soc. Ent. Fr.* x. 216, 17, pl. 3, A.
 f. 9.

24. COCCUS ? CLEMATIDIS.

Coccus clematidis, *Geoff. Ins. Par.* i. 506, 1. *Gmel. Ed. Syst. Nat.*
 i. 4, 2220, 30.

France.

25. COCCUS PRUNASTRI.

Coccus Prunastri, *Fonscol. Ann. Soc. Ent. Fr.* x. 211, 11.

S. France.

26. COCCUS ? THYMI.

Coccus Thymi, *Schrank, Faun. Boic.* ii. 1, 146, 1268.

Bavaria.

27. COCCUS CRISPUS.

Coccus crispus, *Fonscol. Ann. Soc. Ent. Fr.* iii. 204, 3, pl. 3, A. f. 3.

S. France.

28. COCCUS SINENSIS.

Picea, elliptica; *dorsum lanugine alba dense vestitum*; *pedes ferruginei*.

Pitchy, elliptical, thickly covered above with white woolly matter: feelers submoniliform, slightly setaceous; the joints successively increasing in length: legs ferruginous, hairy. Length of the body 2 lines.

a, b. China. Presented by G. T. Lay, Esq.

29. COCCUS TUBERCVLATUS.

Coccus tuberculatus, *Bouché, Nat. Gesch. Ins.* i. 18, pl. 1, f. 9—13. Germany.

30. COCCUS LARICIS.

Coccus Laricis, *Bouché, Nat. Gesch. Ins.* i, 22. Germany.

31. COCCUS CAUDATUS.

Mas. Gracilis, n. igma, albo lanuginosa; *antennæ filiformes, corpore duplo longiores*; *abdominis setæ longissimæ*; *pedes setosi*; *alæ cinereæ*.

Male.—Black, slender, with a thick white covering: feelers filiform, bristly, about twice the length of the body: bristles of the abdomen about five times the length of the body: legs bristly: wings gray. Length of the body 3 lines; of the wings 4 lines.

a. Columbia. From Dr. Cuming's collection.

32. COCCUS FAGI.

Flava, elliptica, albo-farinosa.

Yellow, elliptical, covered with white powder. Length of the body 2 lines.

England.

Genus 4. PORPHYROPHORA.

Porphyrophora, *Brandt, Medic. Zool.* ii. 355.

Coccus, *Linn., Fabr., Frisch, Modeer, Geoffr., Schrank, &c.*

1. PORPHYROPHORA POLONICA.

Coccus Polonicus, *Linn. Syst. Nat.* ii. 741, 14. *Faun. Suec.* 1 ed. 720, 2 ed, 1023. *Fabr. Sp. Ins.* ii. 395, 20. *Mant. Ins.* ii. 319, 23. *Ent. Syst.* iv. 227, 25. *Syst. Rhyn.* 310, 26. *Müll. Fn. Frid.* 31, 301. *Modeer, Act. Gothenb.* i. 34, 21. *Geoff. Ins. Par.* i. 504, 1. *Breyn. Act. Acad. Nat. Cur.* iii. App. 5, 32. *Act. Phys. Med.* 6, 3, App. 5, pl. 1. *Camer. Epit.* 691. *Bauh. Pin.* 281. *Rupp. Jen.* 86. *Raii, Hist.* 186. *Bauh. Hist.* iii. 378. *Frisch, Ins.* v. 6, pl. 2. *Act. Ups.* 1742, pl. 1. *Réaum. Ins.* iv. 1, 14. *Gmel. Ed. Syst. Nat.* i. 4, 2218, 17. *Schrank, Faun. Boic.* ii. 1, 147, 1276. *Stew. El. Nat. Hist.* ii. 113. *Shaw, Gen. Zool.* vi. 194.

Dactylopius Polonicus, *Costa, Faun. Regn. Nap. Gallinsetti*, 17, 2. Poland.

2. PORPHYROPHORA HAMELII.

Porphyrophora Hamelii, *Brandt, Medic. Zool.* ii. 355, 1. *Mém. Acad. St. Petersb. Sc. Phys.* iii. 2, 60, pl. 2.

Porphyrophora armeniaca, *Burm. Handb. Ent.* ii. 1, 78, 1.

Armenia.

Genus 5. CEROPLASTES.

Ceroplastes, *Gray, Spicilegia Zoologica*, 7.

1. CEROPLASTES CHILENSIS.

Ceroplastes chilensis, *Gray, Spicilegia Zoologica*, 7, pl. 3, f. 7.

a—g. Chili. Presented by J. E. Gray, Esq.

2. CEROPLASTES JANEIRENSIS.

Ceroplastes Janeirensis, Gray, *Spicilegia Zoologica*, 7, pl. 3, f. 6.

a—d. Rio Janeiro. Presented by J. E. Gray, Esq.

3. CEROPLASTES JAMAICENSIS.

Coccus (*Ceroplastes*) *Jamaicensis*, White, *Ann. Nat. Hist.* xvii. 333.

a—d. Jamaica. From Mr. Gosse's collection.

4. CEROPLASTES CERIFERUS.

Coccus ceriferus, *Fabr. Ent. Syst. Suppl.* 546, 27. *Syst. Rhyn.* 311, 28. *Charannes, Bull. Soc. Sci. Nat. Cant. Vaud. Ann. Soc. Ent. Fr. 2me Série*, vi. 144, 1. *Anderson, Monogr. Cocci Ceriferi, Madras*, 1791. *Pearson, Trans. Phil.* 1794, 383. *Ann. de Chimie*, xxiii. 140. *Lemaire, Bull. de Ferus. Sc. Med. Journ. Pharm.* viii. ?

Madras.

5. CEROPLASTES CEREUS.

Coccus pe-lá, *Charannes, Bull. Soc. Sci. Nat. Cant. Vaud. Ann. Soc. Ent. Fr. 2me Série*, vi. 145, 2. *Stanislas Julien, Comptendu Acad. Sci.* 1840. *Rozier Mém. ? Grosier's China*, i. 439. *Southey's Thalaba*, ii. 166. *Sir G. Staunton, Emb. China*, i. 400. *Kirby & Spence, Intr. Ent.* i. 327.

Coccus ——— ? *Davis, China, Asiat. Rech.* xiv. 182. *Charannes, Bull. Soc. Sci. Nat. Cant. Vaud. Ann. Soc. Ent. Fr. 2me Série*, vi. 145, 4.

China.

6. CEROPLASTES AUSTRALIÆ.

Alba, depressa, subrotunda.

White, flat, almost round. Length 2 lines.

a—z. Sydney. Presented by Capt. Sir E. Home.

7. CEROPLASTES ———?

a—f. Guayquil. Presented by Capt. Belcher.

Genus 6. MARGARODES.

Margarodes, *Lansdown Guilding, Linn. Trans.* xvi. 118.

1. MARGARODES FORMICARUM.

Margarodes Formicarum, *Lansd. Guild. Linn. Trans.* xvi. 119, pl.
12. *Latr. Bull. Ferussac*, 1831.

West Indies.

Genus 7. ASPISARCUS.

Aspisarcus, *Newport*.

1. ASPISARCUS EUCALYPTI.

Aspisarcus Eucalypti, *Newport*.

a—c. New Holland, (300 miles from Port Philip). Presented by
Dr. D. MacLagan.

Genus 8. MONOPHLEBUS.

Monophlebus, *Leach, Latr.*

Chironomus, p., *Fabr.*

1. MONOPHLEBUS DUBIUS.

Chironomus dubius, *Fabr. Syst. Antl.* 46, 40.

Monophlebus Fabricii, *Westw. Arc. Ent.* i. 22, 1.

Sumatra.

2. MONOPHLEBUS ATRIPENNIS.

Monophlebus atripennis, *Klug, Handb.* ii. 80. *Westw. Arc. Ent.*
i. 22, 2.

a. East Indies. Presented by Capt. Parry.

b. East Indies. From Archdeacon Clerk's collection.

c. East Indies. From Mr. Sowerby's collection.

d—f. ———?

3. MONOPHLEBUS LEACHII.

Monophlebus Leachii, *Westw. Arc. Ent.* i. 22, 3, pl. 6, f. 1. *Zool. Journ.* ii. 20, 452.

Malabar.

4. MONOPHLEBUS BURMEISTERI.

Monophlebus Burmeisteri, *Westw. Arc. Ent.* i. 22, 4, pl. 6, f. 2. *Entomologist*, 146, 4.

5. MONOPHLEBUS SAUNDERSII.

Monophlebus Saundersii, *Westw. Arc. Ent.* i. 22, 5. *Entomologist*, 146, 5.

East Indies.

6. MONOPHLEBUS RADDONI.

Monophlebus Raddoni, *Westw. Arc. Ent.* i. 22, 6, pl. 6, f. 3. *Entomologist*, 146, 6.

West Africa.

7. MONOPHLEBUS ILLIGERI.

Monophlegus Illigeri, *Westw. Arc. Ent.* i. 227, pl. 6, f. 4. *Entomologist*, 146, 7.

Van Diemen's Land.

8. MONOPHLEBUS FUSCIPENNIS.

Monophlebus fuscipennis, *Burm. Handb. Ent.* ii. 1, 80, pl. 2, f. 4, 6. *Entomologist*, 146, 8.

Germany.

9. MONOPHLEBUS BRASILIENSIS.

Coccineus ; *antennæ fuscae* ; *alæ nigrae, subrugosæ*.

Bright red : feelers brown, red at the base, moniliform, clothed with whorls of hairs, longer than the body : wings black. finely

rugulose; veins bright red towards the base. Length of the body $1\frac{1}{2}$ line; of the wings 5 lines.

a—c. Parà. From Mr. Stevens' collection.

Genus 9. CALLIPAPPUS.

Callipappus, *Guérin, Rev. Zool.* 1841. *Amyot et Serr. Hist. Nat. Hém.* 619, 495.

1. CALLIPAPPUS WESTWOODII.

Callipappus Westwoodii, *Guérin, Rev. Zool.* 1841. *Amyot et Serr. Hist. Nat. Hém.* 620, 1.

a. West Australia. From Mr. Clifton's collection.

Genus 10. DORTHESIA.

Dorthesia, *Bosc, Journ. de Phys.* 1784, 171. *Latr., Léon Duf., Burm.*

Aphis, *Linn., Fabr., Frisch.*

Coccus, *Dorthes, Fabr., Panz.*

Cionops, *Leach.*

1. DORTHESIA URTICÆ.

Aphis Urticæ, *Linn. Syst. Nat.* i. 2, 736. 30. *Fabr. Sp. Ins.* ii. 387, 29. *Ent. Syst.* iv. 217, 35. *Frisch. Ins.* viii. 34, pl. 17. *Gmel. Ed. Syst. Nat.* i. 4, 2208, 30. *Turt. Syst. Nat.* ii. 70, 6. *Rossi, Faun. Etrusc.* 262, 1389.

Coccus characias, *Dorthes, Journ. de Phys.* 1785, 207, 11, pl. 1, f. 14—16. *Fabr. Syst. Rhyn.* 311, 29. *Oliv. Ent.* vi. 99, 9. *Leach, Edin. Enc.* i. 126. *Léon Duf. Hém.* pl. 9, 102.

Coccus dubius, *Fabr. Ent. Syst.* iv. 228, 27. *Panz. Faun. Ins. Germ.* xxxv. 21.

Dorthesia characias, *Bosc, Journ. Phys.* 1784, 171, pl. 1, f. 2—4. *Latr. Gen.* iii. 175, 1. *Duf. Rhyn.* 110, pl. 10, f. 102—109. *Kirby & Spence, Intr. Ent.* iii. 183. *Westw. Intr.* i. pl. 1, f. 8. *Blanch. Hist. Nat. Ins.* 212. *Amyot et Serr. Hist. Nat. Hém.* 624, 1, pl. 1, f. 8.

Aphis Urticata, *Stew. El. Nat. Hist.* ii. 110.

Dorthesia Urticæ, *Burm. Handb. Ent.* ii. 1, 76, 1.
Orthezia, *Amyot, Ann. Soc. Ent. Fr. 2me Sér.* v. 489, 544.
a. Scotland. Presented by E. Doubleday, Esq.
b—d. ———?

2. DORTHEZIA FLOCCOSA.

Dorthesia floccosa, *Kirby & Spence, Intr. Ent.* iii. 183.
Coccus floccosus, *Deg. Ins.* vii. 604, pl. 44, f. 26.
a, b. ———?

3. DORTHEZIA CATAPHRACTA.

Coccus cataphractus, *Shaw, Nat. Misc.* v. pl. 182. *Gen. Zool.* vi. 194, pl. 62. *Stew. El. Nat. Hist.* ii. 114. *Turt. Syst. Nat.* ii. 714.
 England.

4. DORTHEZIA CHITON.

Dorthesia Chiton, *Zett. Faun. Lapp.* i. 562, 5, 1.
 Lapland.

5. DORTHEZIA AMERICANA.

Flava, elliptica, squamis albis tecta ; antennis pedibusque ferrugineo-rufis ; laminæ laterales et apicales breves.

Yellow, elliptical, enclosed in short white scales: feelers and legs reddish ferruginous. Length of the body $1\frac{1}{2}$ line.

a. North America. Presented by the Earl of Derby.

Genus 11. ALEYRODES.

Aleyrodes, *Latr., Leach, Kirby, Hartig, Germ. Ent. Zeit.* iii. 371, pl. 1, f. 30, 31. *Amyot et Serv.*
Phalæna-Tinea, p., *Linn.*
Phalæna, p., *Geoff.*
Aleurodes, *Burm.*

1. ALEYRODES PROLETELLA.

Phalæna-Tinea proletella, *Linn. Syst. Nat.* 889, 374. *Réaum. Ins.* ii. 302, pl. 25, f. 1—7. *Geoff. Ins.* ii. 172, 126. *Ræm. Gen.* i. pl. 23, f. 18. *Stew. El. Nat. Hist.* ii. 199.

Aleyrodes Chelidonii, *Latr. Gen.* iii. 174, 1. *Leach, Edin. Enc.* ix. 126. *Tign. Hist. Nat. Ins.* 232, pl. 5, f. 2. *Kirby & Spence, Intr. Ent.* iii. 80, 261. *Burm. Handb. Ent.* 83, 1, pl. 1, f. 1, pl. 2, f. 7. *Hart. Z.*, 371, pl. f. *Blanch. Hist. Nat. Ins.* 211. *Amyot et Serv. Hist. Nat. Hém.* 617.

Aleurodes, *Amyot, Ann. Soc. Ent. Fr. 2me Série.* v. 454, 510.

Swarms on the Celandine till near the end of November. When wingless it is yellow, bordered with whitish yellow, and usually surrounded with white cottony matter: the eyes are dark red. The eggs are spindle-shaped, yellow, and shining.

a. England. Presented by F. Walker, Esq.

2. ALEYRODES BRASSICÆ.

Aleyrodes Brassicæ, *Foerster, MSS.*

Perhaps a variety of *A. Chelidonii*. It differs from *A. Fragariæ* in having two spots instead of one on each wing, and its pupa is more round, and of a bright yellow colour, whereas that of *A. Fragariæ* is pale green. On the Cabbage, during nearly the whole year.

a—d. England. Presented by F. Walker, Esq.

3. ALEYRODES FRAGARIÆ.

Appears in myriads on the Strawberry, in the beginning of July, sometimes covering the whole underside of each leaf. The young larvæ stand upright, or on one end, beneath the leaves.

a—d. England. Presented by F. Walker, Esq.

4. ALEYRODES LONICERÆ.

On *Lonicera Periclymenum*. Yellow: head and thorax gray: the fore-wings white, with a dark spot on each. Pupa white, pale yellow beneath, and on the disk above.

a, b. England. Presented by F. Walker, Esq.

The Aleyrodes of the oak, the chestnut, the walnut, the ash, the sycamore, the hazel, the currant, the bramble, *Lythrum Salicaria*, &c., probably belong to one or other of the preceding species, and in the pupa state may be mistaken for *Lecanium*.

5. ALEYRODES PHILLYREÆ.

Aleyrodes Phillyreæ, *Haliday*, *Ent. Mag.* ii. 119.

Feeds on *Phillyrea*, and on different species of *Cratægus*, *Mespilus*, and *Pyrus*. The pupa is green, with a broad brown stripe on the disk; the fly is yellow, with white wings. It is the prey of *Agromyza ornata*, of a *Scymnus*, and of a *Coccophagus*. The male (?) is smaller than the female, and has a brighter yellow chest.

a—z. England. Presented by F. Walker, Esq.

6. ALEYRODES CORNI.

Aleurodes Corni, *Haldeman*, *Amer. Journ. Sci. and Art*, 2nd Series, ix. No. 25, 1850, 109.

United States.

7. ALEYRODES ABUTILONEA.

Aleurodes Abutilonea, *Haldeman*, *Amer. Journ. Sci. and Art*, 2nd Series, ix. No. 25, 1850, 108.

United States.

8. ALEYRODES COCOIS.

Aleyrodes Coccois, *Curtis*, *Ruricola*, *Gard. Chron.* (1846) vi. 284.
Barbadoes.

Order III. PHYSAPODA.

(COMPILED FROM MR. HALIDAY'S MSS.)

Physapoda, *Dum. Zool. Anal.* 269. *Haliday*.Thysanoptera, *Haliday, Ent. Mag.* iii. 439.Dermaptera—Orthoptera, p., *DeLaporte*.Thripsites, *Newman*.Thrypsinæ, *Blanch*.Malacoptera, *Brullé*.Physopoda, *Burm., Amyot et Serv*.

Os inferum—scilicet—haustellum (coriaceum aut fere membranaceum) maxillis latis adpressis, mandibulis setaceis in lingua curva basi dilatata inclusis, (connexis siphona bivalvem fingentibus): palpis 4: tarsi biarticulati, apice vesiculosi, exungues: alæ 4 subæquales (explicatæ, lineares, ciliatæ, parce venosæ, haud raro abbreviatæ aut deficientes, et maxime in *maribus*): antennæ pauci-articulatæ: [prothorax mediocris, dissitus].

Victus e succis plantarum.

Rachis nodis coarctatis subquaternis (et chorda simplici?): Salivaria folliculiformia? receptaculis bis geminis conformibus? ductibus filiformibus: intestinum corpore sesquiplo seu duplo longius, flexuosum; proventriculo membranaceo, cæcis nullis: intestina tenue perbreve: vasa hepatica 4, seorsum inserta in verticillo, apice libera. *Mas*: testes unicapsulares, folliculiformes. *Fæm.* ovaria digitata thecis 4 multilocularibus: tracheæ tubulosæ tantum.

Metamorphosis incompleta, per duas ætates intermedias progrediens, scilicet:—

Propupa et pupa, asitophaga, tardigrada.

Larva oculorum lenticulis paucis dissitis.

Terebra fœminis

- nulla : Fam. 1. TUBULIFERA.
 ocelli
 tres, anticus distans Gen. 1. IDOLOTHRIPS.
 tres, æquidistantes (aut obsoleti) ,, 2. PHLÆOTHRIPS.
 quadrivalvis acuta : Fam. 2. TEREBRANTIA.
 incurva Tr. 1. STENOPTERA.
 antennæ apice
 capillaceæ Gen. 3. HELIOTHRIPS.
 stylatæ : abdomen
 tomentosum ,, 4. SERICOTHRIPS.
 subnudum ,, 5. THRIPS.
 antennæ apicula
 connata Sub-gen. 1. APTINOTHRIPS.
 discreta ; prothorax apice
 valde angustatus ,, 3. CHIOTHRIPS.
 parum attenuatus :
 abdomen dorso
 efoveolatum ,, 2. LIMOTHRIPS.
 seriatim foveolatum
 apicula pro ratione
 articuli 6ti
 brevis ,, 4. THRIPS.
 elongata ,, 5. BELOTHRIPS.
 antennæ recurva ; Tr. 2. COLEOPTRATA.
 articulis 9 discretis Gen. 6. MELANTHRIPS.
 articulis 5 citra apiculam :... ,, 7. ÆOLOTHRIPS.
 alæ completæ Sub-gen. 1. COLEOTHRIPS.
 alarum rudimenta tantum ,, 2. ÆLEOTHRIPS.

Fam. I. TUBULIFERA.

Tubulifera, *Haliday, Ent. Mag.* iii. 441. *Burm., Amyot et Serv.*

Abdomen segmento ultimo tubuloso in *mare* et *fœm.* : terebra *fœm.* nulla : coxæ distantes, subglobosæ, subexertæ : alæ aveniæ fere et membranaceæ, undique longe ciliatæ, cruciatio-incumbentes : (mandibulæ recurvæ, longius exerendæ) : antennæ 8-articulatæ. Ambulant lente, nec *saltitant*.

Palpi maxillares 2-articulati, articulo 1mo perbrevis, labiales 6-articulati : femora antica basi sinu trochanterem cohibentia. *Mares* segmento ventrali penultimo apice convexiore distinguendi. Intestinum corpore fere sesquiplo longius : proventriculus pyriformis ab

ingluvie incisura profunda discretus, a duodeno alvei tenuis ore distans: intestinum tenue diametro vix longius: adeps in corpore acinis sanguineis conglomeratis plus minus commixtus: vasa hepatica obscure rufescentia. *Mas*: vesiculis tenuibus binis paribus, totidem imparibus.

Ovum subcylindricum rectum.

Larva antennis 7-articulatis, maxillis parallelis, mandibulis prælongis.

Propupa antennis divaricatis obtusis.

Pupa antennis ad latera capitis reflexis et adglutinatiss.

Obs.—Quæ de structura interna et metamorphosi supra allata sunt a *Phlæothripibus* ducta sunt, utraque de altero genere incognita.

Genus 1. IDOLOTHRIPS.

Idolothrips, *Hal. MSS.*

Ocellus anterior remotus ab basi antennarum: haustellum basim prosterni attingens: palpi labiales papilliformes: alæ anticæ vena unica obsoletiore dimidiata, aut abbreviata. [Caput longissimum teres: abdomen excavatum].

Antennæ graciles, thoracis latitudinem triplo aut quadruplo superantes: palpi labiales papilliformes: prothorax inæqualis tuberculatus: metatarsi inermes. Statura procera, ut in hac familia; trilinearis et ultra.

A. Abdomen segmentis posterioribus tam longitudinis quam latitudinis ratione decrescentibus, lateribus fere muticum.

1. IDOLOTHRIPS MARGINATA.

Nigra: abdominis maculis lateralibus thoracisque punctis sanguineis: antennis albidis, articulis apice, interioribus et extremis totis, nigris: pedibus pallide ferrugineis fusco-cingulatis, femoribus anticis nigris, vel basi plaga sanguinea.

New Holland.

AA. Abdomen longissimum, segmentis penultimis oblongis, lateribus denticulatum, tubulo basi gibbulo et muricato.

Obs.—Discrimen fore sexus suspicor, ideoque nos pro masculis, prioris sectionis pro fæminis, accipio, haud absque dubio. Variantur utroque colore perparum.

2. IDOLOTHRIPS SPECTRUM.

Abdominis lateribus valide 7-dentatis, denticulis spinâ, 3tio et 4to seta tantum, terminatis; segmento penultimo gibbere apicali bispinoso: maxima quam vidi in hoc genere, ideoque inter *Physapoda* facile princeps. Long. 4 lin. et ultra.

New Holland.

3. IDOLOTHRIPS LACERTINA.

Abdominis lateribus subtilius denticulatis, denticulis intermediis pluribus muticis, segmento penultimo apice biseto. Præcedente fere duplo minor. Long. 3 lin.

New Holland.

Genus 2. PHLÆOTHRIPS.

Phlæothrips, *Hal. Ent. Mag.* iii. 441. *Burm.*

Thrips, *Deg., Fabr., Geoff., Dufour.*

Phlæothrips, Hoplothrips, et Haplothrips, *Amyot et Serv.*

Ocelli tres æquidistantes, in alatis saltem: haustellum inter coxas anticas subdeflexum: palpi labiales ovati: alæ anticæ vena unica nonnisi inchoata (vel abbreviatæ aut nullæ). [Caput oblongum depressum: abdomen depressum].

Antennæ thoracis latitudinem haud multum superantes: palpi labiales subovati: prothorax foveolatus: abdomen lateribus muticum: pedes breves; femora antica plerumque valde incrassata et metatarsus denticulo instructus.

Degunt in floribus aliæ, aliæ sub arborum cortice gregariæ.

A. Alæ et ocelli desunt.

APTERÆ.

Obs.—An alatae inter has quoque obviæ sint nescio: conferenda *Phl. pedicularia*, No. 2.

1. *PHLÆOTHRIPS TRISTIS*.

Nigra nitida, antennarum articulo 3tio albedo, metatarso mutico.
Long. 1 lin.

A A. Rudimenta alarum adsunt et ocelli, at nonnunquam utraque deficiunt, [tarsi antici dentati et femora valde incrassata, in *mare* vero præsertim]: alatae tamen obviæ sunt numero pauciores, et *fæminæ* omnes, spes coloniae.

HETEROPTERÆ.

2. *PHLÆOTHRIPS PEDICULARIA*.

Phlæothrips pedicularia, *Hal. Ent. Mag.* iii. 441, 1.

Phlæothrips flavipes, *Hal. Ent. Mag.* iii. 442, 4. *Burm. Handb. Ent.* ii. 408, 4.

Hoplothrips flavipes, *Amyot et Serv. Hist. Nat. Hém.* 640, 3.

Fusco-castanea, capite abdominis apice antennarum articulis plerisque basi pedibusque ferrugineis; ocellis et alis obsoletis, oculis exiguis. *Mas* perbrevis, femoribus anticis latioribus capite, denticulo metatarsi crasso conico, *fæm.* denticulo tenuiore. Tum *fæm.* fusco-picea, abdominis apice antennarum articulis intermediis basi pedibusque nisi basi ferrugineis, alis completis aut abbreviatis.
Long. *fæm.* 1 lin., *mar.* $\frac{3}{4}$ lin.

Larva roseo-incarnata.

Hab. Sub cortice *Sorbi Aucupariæ*.

3. *PHLÆOTHRIPS ULMI*.

Thrips Ulmi, *Fabr. Sp. Ins.* ii. 396, 3. *Mant. Ins.* ii. 320, 3. *Ent. Syst.* iv. 229, 3. *Syst. Rhyn.* 313, 5. *Gmel. Ed. Syst. Nat.* i. 4, 2223, 6.

Thrips, &c., *Geoff. Ins. Par.* i. 384, 1, pl. 7, f. 6.

Thrips corticis, *Deg. Ins.* iii. 11, 3, pl. 1, f. 8—13.

Phlæothrips Ulmi, *Hal. Ent. Mag.* iii. 441, 3, iv. 145. *Burm. Handb. Ent.* ii. 409, 3.

Hoplothrips corticis, *Amyot et Serv. Hist. Nat. Hém.* 640, 2.

Subaptera, nigro-picea pectore dilutius piceo, antennarum articulo 3tio toto sequentibus basi pallide flavis, tibiis basi et apice anticis totis tarsisque ferrugineis, ♂, ♀. Tum *fæm.* alata, alis anticis extus lævissime flavicantibus.

Larva depressa alba, capite antennis prothoracis maculâ bilobâ et abdominis apice nigris.

Hab. Sub cortice arborum exsiccato, presertim *Ulmi*, gregaria.

Long. *fæm.* $1\frac{1}{2}$ lin., *mar.* 1 lin.

a. England. Presented by F. Walker, Esq.

4. PHLÆOTHRIPS PINI.

Phlæothrips Pini, *Hal. Ent. Mag.* iv. 145.

Thrips aptera, *Duf. Ann. Sci. Nat.* 1839, xi. 322.

Subaptera, nigro-picea pectore dilutius piceo, antennarum articulo 3o toto, sequentibus basi pallide flavis, tibiis basi apiceque anticis totis tarsisque ferrugineis, ♂, ♀. Tum *fæm.* alata, alis extrorsum infumatis.

Larva elongata, incarnata, abdominis apice et antennis dilutius nigricantibus.

Hab. Sub cortice arborum emortuarum, et præcipue *Pini sylvestris*, gregaria. Long. *fæm.* $1\frac{2}{3}$ lin.

Præcedenti simillima, modò longior : alata læviore opere dignoscenda.

A A A. Alatæ in utroque sexu.

MACROPTERÆ.

a. Metatarsus anticus indentatus in *mare* et *fæm.*

5. PHLÆOTHRIPS STATICES.

Phlæothrips statices, *Hal. Ent. Mag.* iii. 443, 5. *Burm. Handb. Ent.* ii. 409, 5.

Hoplothrips statices, *Amyot et Serv. Hist. Nat. Hém.* 640, 4.

Nigra, antennarum articulo 3tio et tarsis anticis cum apice tibie fusco-piceis, alis fusco ciliatis. *Mas* : pedibus anticis prevalidis metatarsi denticulo conspicuo. *Fæm.* denticulo minutissimo. Long. *fæm.* vix 1 lin. *mar.* $1\frac{3}{4}$ lin.

Larva sanguinea, capite antennis abdomine postice et pedibus nigricantibus.

Hab. In capitulis *Armerie maritimæ* frequens, etiam in corymbis *Chrysanthemi leucanthemi*. Foisan itaque *Thrips leucanthemi* et *brachiata*, Schranck, eadem sp. *fæm.* et *mas*.

a a. Metatarsus anticus muticus (in fœminis?).

6. PHLÆOTHRIPS SUBTILISSIMA.

Nigra, antennarum flagello nisi apice tarsisque pallide ferrugineis, tibiis anticis nisi basi ferrugineis, alis subhyalinis; *fœm.*^p

Hab. Sub cortice, sat agilis; in gallis Quercûs, F. W.

Præcedenti æqualis satis distincta. Caput antice magis rotundato-attenuatum, postice tantum subtilissime transversim aciculatum, inter oculos lævissimum: antennæ medio haud crassiores: alæ dimidio interiore lævius flavicante ciliis vix fuscis nisi cum congesta visantur. Tubus analis paulo brevior videtur. Long. $\frac{2}{3}$ — $\frac{3}{4}$ lin.

a. England. Presented by F. Walker, Esq.

7. PHLÆOTHRIPS ALBIPENNIS.

Phlæothrips albipennis, *Burm. Handb. Ent.* ii. 410, 6.

Phlæothrips aculeata, *Hal. Ent. Mag.* iii. 441, 2.

Haplothrips albipennis, *Amyot et Serv. Hist. Nat. Hém.* 640, 1.

Nigra, antennarum articulis 3tio et 4to totis 2do et 5to basi tibiis apice anticis totis tarsisque pallidis, corporis setis fuscis, femoribus subæqualibus; *fœm.* Long. *fœm.* $1\frac{1}{2}$ lin.

"*Hab.* In floribus *Valerianæ dioicæ* frequens," *Burm. l. c.*

* *Alatæ* de quibus hæreo annon referendæ forent ad *Heteropterarum* sectionem.

8. PHLÆOTHRIPS CORIACEA.

Phlæothrips coriacea, *Hal. Ent. Mag.* iii. 443, 6. *Burm. Handb.*

Ent. ii. 410, 7. *Amyot et Serv. Hist. Nat. Hém.* 640, 1.

Piceo-nigra, antennarum articulo 3tio toto sequentibus basi pallidis, tibiis basi apiceque anticis totis tarsisque ferrugineis, capite intricatim ruguloso, pone oculos parum rotundato-dilatato et muricato, femoribus anticis incrassatis, denticulo metatarsi manifesto; *fœm.* Long. $1\frac{1}{3}$ lin.

9. *PHLÆOTHRIPS ANNULICORNIS*.

Phlæothrips annulicornis, *Hal. Ent. Mag.* iii. 443, 7. *Burm. Handb. Ent.* ii. 410, 8. *Amyot et Serv. Hist. Nat. Hém.* 640, 2.

Piceo-nigra; antennarum articulis intermediis basi tibiis anticis tarsisque ferrugineis; capite transversim aciculato, ponè oculos parum dilatato; femoribus anticis incrassatis, denticulo metatarsi manifesto, *fæm.*? Long. 1 lin.

Fam. 2. *TEREBRANTIA*.

Terebrantia, *Hal. Ent. Mag.* iii. 443. *Burm., Amyot et Serv.*

Terebra fœminis compressa acuta quadrivalvis, in rima ventrali segmentorum penultimi et ultimi recondita: alæ anticæ firmiores: venis, præter ambitum, duabus parallelis elongatis, et axillari brevi obliqua, juxtapositæ suturâ rectâ: mandibulæ labium vix superantes: saltant abdomine percusso.

Antennæ pro typo 9-articulatæ at multiformes: palpi maxillares 3-articulati: terebræ valvulæ exteriores margine supero, interiores infero, denticulato: junctura femorum cum coxis simplex, rectilinearis: coxæ posticæ approximatae; anticæ exsertæ, subcylindricæ, obliquæ conniventes (nisi in *Heliothripe*).

Tribe 1. *STENOPTERA*.

Stenoptera, *Burm. Handb. Ent.* ii. *Amyot et Serv.*
Stenelytra, *Hal. Ent. Mag.* iii. 443.

Antennæ articulis 6 discretis et apicula attenuata (plerumque biarticulata): hemelytra vix coriacea, conjunctim abdomine angustiora, subacuta undique ciliata, venis transversis nullis: terebra *fæm.* decurva.

Antennæ apicula nonnunquam articulis indiscretis, varius altero adjecto, aut apicula cum articulo 6to connata: palpi teretes subrecti, articulis subæqualibus, segmenta quæ terebram recipiunt hujus ambitum servant.

Genus 3. HELIOTHIRIPS.

Heliothrips, *Hal. Ent. Mag.* iii. 443, 1. *Burm., Amyot et Serv.*
Thrips, *Bouché*.

Antennæ apice capillacæ : coxæ anticæ distantes subglobosæ : hemelytra nisi basi valde attenuata : vena anteriore costam ante medium appetente : corporis pagina supina concinne reticulata.

Antennæ apicula elongata setacea 3-articulata : colli junctura incisa.

1. HELIOTHIRIPS HÆMORRHOIDALIS.

Heliothrips hæmorrhoidalis, *Burm. Handb. Ent.* ii. 412. *Amyot et Serv. Hist. Nat. Hém.* 641. *Hal.*

Thrips hæmorrhoidalis, *Bouché, Schadl. Garten Ins.* 42.

Heliothrips Adonidum, *Hal. Ent. Mag.* iii. 443.

Fusca, abdominis apice ferrugineo ; antennis albidis basi fuscis, apice nigris ; pedibus albidis. Long. $\frac{2}{3}$ — $\frac{3}{4}$ lin.

Hab. In vaporariis Europæ, sub foliis *Malvacearum*, &c. ; exitiosa hospitatur.

a—d. England. Presented by F. Walker, Esq.

Genus 4. SERICOTHRIPS.

Sericothrips, *Hal. Ent. Mag.* iii. 444. *Burm., Amyot et Serv.*

Antennæ apicula brevi : hemelytra vena utraque fere in apicem excurrente ; (vel sæpius alarum rudimenta tantum) : abdomen tomentosum, segmento extremo in utroque sexu conico-attenuato.

Thorax et caput opaca quasi carbonacea : alæ (posticæ) tenuissimæ, lobo axillari dilatato. *Mas* lacinia obtusa subapice abdominis parum prominula distingui potest : intestinum tenue basi in utriculū pro recipiendis vasis hepaticis ampliātum : quoad cætera differt non multum a structura *Thripis*.

1. SERICOTHRIPS STAPHYLINUS.

Sericothrips staphylinus, *Hal. Ent. Mag.* iii. 444. *Burm. Handb. Ent.* 413. *Amyot et Serv. Hist. Nat. Hém.* 641.

Subaptera, *Mas* et *Fæm.* abdominis dorso subtilissime seriatim ciliato.

Nigra; capite thoraceque opacis, scutello albomicante, abdomine sericeo; antennæ articulo 2^{do} et 3^{io} pedesque pallide ferruginei, femoribus basi fuscis; alarum rudimenta alba, radice nigricante. Long. $\frac{1}{2}$ lin.

Hab. In floribus *Ulicis*, agillime cursitans et saltitans.

Fœminæ perfecte alatae, hemelytris nigricantibus basi albidis, abdomine vix ciliato, occurrunt rarius cum subapteris commixtæ; ut in pluribus speciebus e genere *Phlæothripe*.

a—d. England. Presented by F. Walker, Esq.

Genus 5. THRIPS.

Thrips, *Hal. Ent. Mag.* iii. 444, iv. *Burm.*

Thrips, p., *Linn.*, *Fabr.*, *Deg.*, *Müll.*, *Geoffr.*, *Schrank*, *Gmel.*, *Shaw.*
Latr., *Kirby*.

Thrips, *Physapus*, et *Odontothrips*, *Amyot et Serv.*

Abdomen læviusculum, subglabrum aut seriatim foveolatum, et ciliatum: abdominis segmentum extremum ♂ brevius et obtusius quam ♀: hemelytra alis parum latiores, vena utraque in apicem fere excurrente, vel alæ abbreviatæ aut nullæ.

Intestinum corpore fere duplo longius folliculis et stricturis non tam enunciatis: proventriculus ab alveo vix discretus: intestinum tenue diametro multiplo longior. *Mas* vesiculis geminis tantum, brevioribus, strictis: ovum læviter curvatum (phaseoliforme): larva antennis 4-articulatis citra apiculam biarticulatam: propupa antennis porrectis divaricatis: pupa antennis supra verticem reflexis parallelis.

Antennæ apicula	Subgenus.
connata	1. APTINOTHRIPS.
discreta: Prothorax antice	
valde angustatus	3. CHIROTTHRIPS.
parum angustatus:	
Abdomen dorso	
efoveolatum	2. LIMOTHRIPS.
seriatim foveolatum:	
Antennæ apicula pro ratione articuli 6ti	
brevis	4. THRIPS.
elongata	5. BELOTTHRIPS.

Subgenus 1. APTINOTHRIPS.

Aptinothrips, *Hal. Ent. Mag.* iii. 445.

Antennæ articulo 6to longiore apice attenuato-exannulato: ocelli nulli: corpus lineare glabrum, abdominis dorso efoveolato: alarum ne minimo quidem vestigio.

1. APTINOTHRIPS RUFÆ.

Thrips Apt. rufa, *Hal. Ent. Mag.* iii. 446, 4.

Thrips rufa, (*Gleichen, Neues im Reich der Pflanz.* pl. 16, f. 6, 7).
Gmel. Ed. Syst. Nat. i. 4, 2224, 10.

Ferruginea, oculis et rostri apice fuscis *fæm.*: pallide flava, abdomine glandulis geminis croceis perlucetibus, segmento penultimo ante apicem medium bispinoso *mas.* Long. *fæm.* $\frac{2}{3}$ — $\frac{3}{4}$ lin.

Hab. In gramine et cerealibus.

a. England. Presented by F. Walker, Esq.

“My brief description of *Aptinothrips rufa*, induced Burmeister to set it down as a larva without doubt: but rashly, for the exarticulate apex of the antennæ is no indication of this state, as he seems to infer. It is a perfect insect with compound eyes, smooth coriaceous integuments, connected segments of pterothorax and prominent

humeral angles and a perfect ovipositor. For the greater certainty I took pains to trace its history, and have reared it from the larva, which I have figured, as well as the propupa and pupa. For a long time, indeed, I sought the other sex in vain, and was almost induced to fancy that like *Cynips*, the insect might be unisexual. But remembering that at some seasons females only occur of *Limothrips*, I did not give up the search, and guided by that indication I at last, at the season of hay-harvest, discovered the male, though excessively rare, I may say not a single one to several hundreds of the female. Amyot has gone farther, for while he follows Burmeister in this, he treats as a larva *Phlæothrips pedicularia* also, the development of which Burmeister had recognized."—*Haliday, MSS.*

2. APTINOTHRIPS NITIDULA.

Thrips Apt. nitidula, *Hal. Ent. Mag.* iii. 446, 5.

Fusco-ferruginea, abdominis incisuris fuscis. Long. $\frac{1}{2}$ lin.

Hab. In plantis maritimis (*Plantagine maritima* ?)

a. England. Presented by F. Walker, Esq.

Subgenus 2. LIMOTHRIPS.

Limothrips, *Hal. Ent. Mag.* iii. 444. *Burm., Amyot et Serr.*

Antenna apicula discreta brevi biarticulata: prothorax apice parum attenuatus: abdomen dorso efoveolatum, segmento *fæm.* extremo biglumi: ocelli 3: frons inter oculos impressa: *mares* apteri (an semper?), abdominis lateribus appendiculatis ante apicem.

1. LIMOTHRIPS CEREALIMUM.

Thrips L. cerealium, *Hal. Ent. Mag.* iii. 445, 3. *Burm. Handb. Ent.* ii. 414, 4.

Thrips physapus, *Kirby, Linn. Trans.* iii. 242. *Vassali-Eandi. Mém. Acad. Turin.* xvi. lxxvi.

Limothrips physapus, *Amyot et Serv. Hist. Nat. Hém.* 642.

Long. *fæm.* $\frac{3}{4}$ lin. et ultra, *mar.* $\frac{1}{2}$ — $\frac{2}{3}$ lin.

a—d. England. Presented by F. Walker, Esq.

2. LIMOTHRIPS DENTICORNIS.

Thrips *L. denticornis*, *Hal. Ent. Mag.* iii. 445, 2.

Limothrips denticornis, *Burm. Handb. Ent.* ii. 414, 3. *Amyot et Serv. Hist. Nat. Hém.* 642, 1.

Antennarum articulo 3tio trigono acuminato; nigra, antennarum medio, tibiis anticis, dempta basi, tarsisque fusco pallidis; hemelytris fuscis basi pallescentibus; abdominis apice 6-spinoso: *fæm.* Long. $\frac{3}{4}$ —1 lin.

Subgenus 3. CHIROTHRIPS.

Chirothrips, *Hal. Ent. Mag.* iii. 444. *Burm., Amyot et Serv.*

Antennæ articulo 2ndo acuminato, apicula brevi biarticulata: ocelli 3: caput parvum: prothorax magnus antice valde attenuatus: pedes antici præcrassi.

Alæ abdomen superantes.

1. CHIROTHRIPS MANICATA.

Thrips *C. manicata*, *Hal. Ent. Mag.* iii. 444.

Chirothrips manicata, *Burm. Handb. Ent.* ii. 413, 1. *Amyot et Serv. Hist. Hém.* 642, 1.

Chirothrips longipennis, *Burm. Handb. Ent.* ii. 413, 2. *Amyot et Serv. Hist. Nat. Hém.* 642, 2.

Picea, antennarum medio tarsisque fusco pallidis, hemelytris fuscis (antennarum articulo 2ndo dilatato acuminato). Long. $\frac{1}{2}$ — $\frac{2}{3}$ lin.

Subgenus 4. THRIPS.

Thrips, *Hal. Ent. Mag.* iii. 446. *Burm. Amyot et Serv.*

Antennæ apicula discreta brevi biarticulata, rarius articulo adjecto sæpe utroque indiscreto: ocelli 3: prothorax antrorsum parum attenuatus: abdomen seriatim foveolatum nonnunquam et verticillato-ciliatum, segmento extremo mutico.

Thorax

Sectiones.

glaber	1. GYMNOPTERÆ.
pilis perpaucis aspersus ; tibiæ anticæ apice intus dentatæ	2. EUDACTYLI.
muticæ ; alæ fœminis nullæ	7. BRACHYDERI.
abortivæ	6. MICROPTERÆ.
evolutæ ; tum maribus nullæ	5. HETEROGYNÆ.
abortivæ	4. NEOGAMI.
evolutæ	3. HOMOPTERÆ.

Section 1. GYMNOPTERÆ.

Prothorax omnino glaber : antennæ apicula 3-articulata : hemelytra venis glabris.

1. THRIPS OBSCURA.

Thrips obscura, Müll. Zool. Dan. Prodr. 1084. Hal. Ent. Mag. iii. 447, 8.

Physapus obscurus, Amyot et Serv. Hist. Nat. Hém. 643, 1.

Pallide ferruginea subcinerascens ; antennarum apice, incisura occipitis, oculisque fuscis : alis fusco-ciliatis. Fœm. long. $\frac{2}{3}$ lin.

Variatur alis abbreviatis.

Hab. In Cerealibus. Mas nondum inventus.

a—e. England. Presented by F. Walker, Esq.

Section 2. EUDACTYLI.

Odontothrips, Amyot et Serv. Hist. Nat. Hém. 642, 8.

Alæ evolutæ : tibiæ anticæ apice interno denticulis 2. (Antennæ apicula bi-articulata).

2. THRIPS ULICIS.

Thrips Ulicis, *Hal. Ent. Mag.* iii. 446, 6.

Odontothrips Ulicis, *Amyot et Serv. Hist. Nat. Hém.* 643, 1.

Nigra, hemelytris nigricantibus basi albidis, antennarum articulo 3tio tibiis anticis tarsisque pallidis, tibiæ denticulis fuscis. Long. $\frac{3}{4}$ —1 lin.

Hab. In floribus *Ulicis*, frequens. Larva ibidem.

a—d. England. Presented by F. Walker, Esq.

3. THRIPS LOTI.

Nigra, hemelytris nigricantibus basi albidis, antennis medio tarsisque pallidis, tibiis anticis pallidis intus fusco marginatis.

Hab. In floribus *Loti corniculati* lecta rarissime, an incola proprius?

4. THRIPS PHALERATA.

Thrips phalerata, *Hal. Ent. Mag.* iii. 447, 7. *Burm. Handb. Ent.* ii. 414, 6.

Odontothrips phalerata, *Amyot et Serv. Hist. Nat. Hém.* 643, 2.

Nigra, hemelytris nigricantibus fascia pallida et basi albida; antennarum articulo 3tio tarsisque pallidis, tibiis anticis pallidis fusco marginatis.

Hab. In floribus *Viciæ sativæ* frequens. Larva ibidem lecta.

Obs. Species alia hemelytris fasciatis in floribus *Sarothamni Scoparii* obvia est.

Section 3. HOMOPTERÆ.

Tæniothrips, *Amyot et Serv. Hist. Nat. Hém.* 644, 11.

Alæ evolutæ in *mare* et *fæm.*: tibiæ muticæ. Ob multitudinem specierum ulterias dispartientæ, at sectiones nondum rite digestæ.

5. THRIPS PRIMULÆ.

Thrips Primulæ, *Hal. Ent. Mag.* iii. 449, 22. *Burm. Handb. Ent.* ii. 415.

Tæniothrips Primulæ, *Amyot et Serv. Hist. Nat. Hém.* 644.

Fusca, incisuris et metathorace lutescentibus, pedibus ferruginosis, antennis medio pallidis; hemelytris breviusculis, stramineis, fascia apiceque fuscis, basi albida (vena anteriore vix nisi basi ciliata); occipite tumido; oculis protuberantibus. *Mas et Fæm.* Long. $\frac{3}{4}$ lin.

Hab. In floribus *Primulæ veris* frequens.

a—d. England. Presented by F. Walker, Esq.

Obs. Species alia oculis protuberantibus in floribus *Orchidis* obvia est.

6. THRIPS DECORA.

Thrips decora, *Hal. Ent. Mag.* iii. 449, 23. *Burm. Handb. Ent.* ii. 416, 11.

Tæniothrips decora, *Amyot et Serv. Hist. Nat. Hém.* 644, 2.

Nigra, hemelytris fuscis fascia pallida, basi albidis, antennis medio, tibiis apice anticis fere totis tarsisque albidis; capite æquilato, *fæm.*

Hab. In *Spiræa Ulmaria* et alibi rarius.

7. THRIPS ASPERA.

Nigra, hemelytris nigricantibus basi albidis, pedibus fuscis femorum anticorum et tibiis basi tibiis anticis tarsisque et antennarum medio pallidis; abdominis segmento antepenultimo basi utrinque mucronato, *mas.*

Semel tantum lecta.

8. THRIPS ATRATA.

Thrips atrata, *Hal. Ent. Mag.* iii. 447, 10.

Physapus atratus, *Amyot et Serv. Hist. Nat. Hém.* 643, 3.

Atra, hemelytris nigricantibus basi albidis, antennarum articulo 3tio tarsisque fuscis. Long. $\frac{3}{4}$ lin.

Hab. In floribus *Spergulæ nodosæ* et alibi frequens.

9. THRIPS VULGATISSIMA.

Thrips vulgatissima, *Hal. Ent. Mag.* iii. 447, 11. *Burm. Handb. Ent.* ii. 414.

Physapus ater, *Deg. Act. Holm*, 1744, 3, pl. 4, f. 4. *Amyot et Serv. Hist. Nat. Hém.* 643, 4.

Thrips physapus, *Deg. Ins.* iii. 6, 1, pl. 1, f. 1. *Shaw, Zool.* vi. 199, pl. 63.

Nigricans, hemelytris albidis, antennis pedibusque fuscis, antennarum articulo 2ndo apice, 3tio toto, femoribus tibiisque basi et apice tarsisque pallidis, *fæm.*

Fusco-testacea, abdomine citra basin nigricante, antennis pedibusque pallidis, antennis apice femoribus tibiisque medio infuscat, *mas.*

Hab. Passim, frequens in *Umbelliferis*, *Siliculosi*, &c.

a—f. England. Presented by F. Walker, Esq.

10. THRIPS CYNORRHODI.

Thrips cynorrhodi, *Hal. Ent. Mag.* iii. 448, 12.

Physapus cynorrhodi, *Amyot et Serv. Hist. Nat. Hém.* 643, 5.

Hab. In floribus *Rosarum trivialium*; præcedenti similis, minor.

11. THRIPS GROSSULARIÆ.

Thrips grossulariæ, *Hal. Ent. Mag.* iii. 448, 13. *Amyot et Serv. Hist. Nat. Hém.* 644, 1.

Hab. In floribus *Ribis Grossulariæ*.

a—d. England. Presented by F. Walker, Esq.

12. THRIPS ULMIFOLIORUM.

Thrips ulmifoliorum, *Hal. Ent. Mag.* iii. 447, 9.

Physapus ulmifoliorum, *Amyot et Serr. Hist. Nat. Hém.* 643, 2.

Ferruginea, albido micans, prothoracis disco et abdomine obscurioribus, antennis fusciscentibus basi pallidis. *Fæm. Long.* $\frac{1}{2}$ lin.

Hab. Sub foliis *Ulni campestris* in Horto Botanico ad Glasnevin prope Eblanam.

Obs. In sequentibus Spp. 17—22, antennarum apicula exarticulata videtur.

13. THRIPS PHYSAPUS.

Thrips physapus, *Linn. Syst. Nat.* ii. 743, 2. *Faun. Suec.* 1027. *Geoffr. Ins. Par.* i. 485, 2. *Scop. Ent. Carn.* 418. *Fabr. Sp. Ins.* ii. 396, 1. *Mant. Ins.* ii. 320, 1. *Ent. Syst.* iv. 228, 1. *Syst. Rhyn.* 313, 3. *Schæff. Elem.* pl. 127. *Gmel. Ed. Syst. Nat.* i. 4, 2222, 2. *Hal. Ent. Mag.* iii. 448, 14. *Burm. Handb. Ent.* ii. 415, 8. *Amyot et Serr. Hist. Nat. Hém.* 644, 2.

Nigra, hemelytris fuscis; antennis albidis basi apiceque fuscis; tibiis apice, anticis nisi margine, tarsisque ferrugineis; oculis glabris. *Long. fæm.* $\frac{2}{3}$ — $\frac{3}{4}$ lin.

Hab. In flosculis *Cichoracearum*.

14. THRIPS FUSCIPENNIS.

Thrips fuscipennis, *Hal. Ent. Mag.* iii. 448, 15. *Amyot et Serr. Hist. Nat. Hém.* 644, 3.

Fusca vel fusco-testacea, abdomine citra basin obscuriore, antennis basi tibiis apice tarsisque pallidioribus, hemelytris fuscis basi albida.

Oculis glabris, *fæm.*

(*Mas* minor, pallidior, abdominis incisuris fuscis, hemelytris pallidis?)

Hab. In gramine pascuorum Julio mense frequens, in *Rumice*, &c.

15. THRIPS DISCOLOR.

Thrips discolor, *Hal. Ent. Mag.* iii. 449, 20. *Amyot et Serv. Hist. Nat. Hém.* 644, 8.

Fusco-ferruginea, abdomine obscuro, antennis medio pedibusque flavescentibus, ocellis rubris, hemelytris albidis, *fæm.*

Flavo-ferruginea, oculis antennarum apice et abdominis incisuris fuscescentibus, *mas.*

Hab. In floribus *Cruciferarum* in Horto Botanico ad Glasnevin prope Eblanam.

16. THRIPS CORYMBIFERARUM.

Thrips corymbiferarum, *Hal. Ent. Mag.* iii. 449, 18. *Amyot et Serv. Hist. Nat. Hém.* 644, 6.

Ferruginea, abdominis incisuris et antennarum apice obscuris, ocellis rubris, hemelytris albidis, *fæm.*

Silacea, *mas.*

Hab. In floribus *Corymbiferarum* in horto prædicto.

17. THRIPS MINUTISSIMA.

Thrips minutissima, *Linn. Syst. Nat.* ii. 743, 3. *Faun. Suec.* 1028. *Fabr. Sp. Ins.* ii. 396, 4. *Mant. Ins.* ii. 320, 4. *Ent. Syst.* iv. 229, 6. *Syst. Rhyn.* 314, 8. *Gmel. Ed. Syst. Nat.* i. 4, 2222, 3. *Hal. Ent. Mag.* iii. 449, 19. *Amyot et Serv. Hist. Nat. Hém.* 644, 7.

Ferruginosa, abdomine obscuriore, antennis basi pedibusque pallidioribus, ocellis decoloribus, hemelytris albidis, *fæm.* Long. $\frac{1}{2}$ lin.

Hab. In *Cerealibus*, in *Reseda odorata* et alibi non infrequens.

Obs. A reliquis parvulis pallidulis statim distinguenda ob ocellos inconspicuos.

18. THRIPS URTICÆ.

Thrips Urticæ, *Fabr. Sp. Ins.* ii. 397, 5. *Mant. Ins.* ii. 320, 5. *Ent. Syst.* iv. 229, 4, *Syst. Rhyn.* 313, 6. *Schrank, Beytr. zur Nat.* 31, pl. 1, f. 25, 26. *Gmel. Ed. Syst. Nat.* i. 4, 2223, 7. *Hal. Ent. Mag.* iii. 448, 17. *Burm. Handb. Ent.* ii. 415, 9. *Amyot et. Serv. Hist. Nat. Hém.* 644, 5.

Flava, thorace luteo, oculis et siphone orali nigris, antennis apice fuscescentibus, ocellis rubris, hemelytris albidis, *fæm.*

Pallidè flava, abdominis glandulis geminis croceis perlucentibus, *mas.*

Hab. Passim, frequens præsertim in floribus luteis, e. gr., *Nasturtio*, *Thalictro*, *Eschscholtzia*, *Chrysanthemo*, *Ranunculo*, &c.

a—f. England. Presented by F. Walker, Esq.

Section 4. NEOGAMI.

Alæ anticæ evolutæ, *maribus* rudimenta: antennæ apicula quasi exarticulata.

19. THRIPS DISPAR.

Thrips dispar, *Hal. Ent. Mag.* iii. 449, 24. *Curt. Brit. Ent.* 748. *Burm. Handb. Ent.* ii. 416, 12.

Thrips brevicornis, *Hal. Ent. Mag.* iii. 449, 25. *Burm. Handb. Ent.* ii. 416.

Tæniothrips dispar, *Amyot et Serv. Hist. Nat. Hém.* 644, 3.

Tæniothrips brevicornis, *Amyot et Serv. Hist. Nat. Hém.* 644, 4.

Nigra, nitida, antennis medio tibiis dempta basi tarsisque albidis, his puncto apicali obscuro, hemelytris breviusculis fuscis fascia pallida et basi albidis, *fæm.*

Nigro-fusca, antennis albidis basi apiceque fuscis, pedibus albidis, coxis nigricantibus, femoribus anticis basi reliquis fere totis infuscatis, alarum rudimentis albis, *mas.*

Hab. In spicis graminum locis humentibus.

Obs.—Alæ fæminis evolutæ equidem sed abdominis apicem non semper attingunt. Long. *fæm.* $\frac{2}{3}$ lin.

Section 5. HETEROGYNÆ.

Mares apteri, ocellis nullis: *fæminæ* alatæ: antennæ apicula biarticulata. Vasa hepatica rufescentia quod in hoc familia fere singulare.

20. THRIPS ERICÆ.

Thrips Ericæ, *Hal. Ent. Mag.* iii. 448, 15. *Amyot et Serv. Hist. Nat. Hém.* 644, 4.

Nigra, abdomine piceo, hemelytris fuscis et fusco ciliatis, tibiis tarsisque ferruginosis, illis margine his puncto apicali fuscis, *fæm.*—aut crocea antennis basi dempta oculisque fuscis, abdominis glandulis rufis perlucentibus segmento penultimo biglumi, *mas.* Long. $\frac{2}{3}$ lin.

Var. *fæm.* piceo-rufa (immaturæ).

Obs.—Etiam in varietate antennæ nigro-fuscæ, et inde corpore obscuriores sunt.

Hab. In floribus *Ericæ Tetralix* in montosis.

Larva simul lecta pinguis lutea.

Section 6. MICROPTERÆ.

Tmetothrips, *Amyot et Serv. Hist. Nat. Hém.* 645, 12.

Alarum tantum rudimenta [thorace breviora, *fæm.*: abdomen subdepressum subtilissime verticillatum: ocelli nulli.

21. THRIPS SUBAPTERA.

Thrips subaptera, *Hal. Ent. Mag.* iii. 450, 26. *Burm. Handb. Ent.* ii. 416, 14.

Tmetothrips subaptera, *Amyot et Serv. Hist. Nat. Hém.* 645, 1.

Nigra, antennis dempta basi et apice tibiis pro parte tarsisque obscure ferrugineis, alarum rudimentis subfuscis, *fæm.* Long. $\frac{1}{2}$ — $\frac{2}{3}$ lin.

Hab. In *Plantagine maritima*?

22. THRIPS PALLENS.

Thrips pallens, *Hal. Ent. Mag.* iii. 450, 27. *Burm. Handb. Ent.* ii. 416, 15.

Tinetothrips pallens, *Amyot et Serv. Hist. Nat. Hém.* 645, 2.

Pallidè ferruginea, abdomine fusco, antennis basi et apice fuscis, *fæm.*

Section 7. BRACHYDERI.

Alæ plane nullæ: thorax brevissimus: abdomen convexum verticillato ciliatum: ocelli nulli, *fæm.*

23. THRIPS TUNICATA.

Ferruginea, abdomine nisi apice nigro, *fæm.*

Var. Sæpius pedibus posticis nonnumquam et thorace postice piceis. Long. $\frac{2}{3}$ lin.

Obs.—Alatam semel vidisse opinor: antennæ fere totæ et oculi fuscis.

Hab. In *Galio Mollugine* florente. *Mas* nondum obvius.

Obs.—Statura accedit aliquantum ad *Coleoptrata*.

Sub-genus 5. BELOTHRIPS.

Belothrips, *Hal. Ent. Mag.* iii. 450. *Burm.*, *Amyot et Serv.*

Antennæ apicula breviarticulata articulo 6to longior: segmentum extremum abdominis in fæminis elongatum acuminatum: tibiæ anticæ dilatatæ fornicatæ.

1. BELOTHRIPS ACUMINATA.

Thrips B., *acuminata*, *Hal. Ent. Mag.* iii. 450, 28.

Belothrips acuminata, *Burm. Handb. Ent.* ii. 416, 16. *Amyot et Serv. Hist. Nat. Hém.* 645.

Nigra, tibiis tarsisque fusco-ferrugineis antennis fuscis.

Hab. In floribus *Rosæ spinosissimæ* at non ubique.

Tribe 2. COLEOPTRATA.

Coleoptrata, *Hal. Ent. Mag.* iii. 450. *Burm., Amyot et Serv.*

Antennæ difformes 9-articulatæ: hemelytra abdominis latitudine, obtusa, coriacea, postice ciliata; venis nonnullis transversis: terebra *fæm.* recurva.

Antennæ articulis	Gen.
9 omnibus discretis	1. MELANTHRIPS
5 et apicula attenuata	2. ÆOLOTHRIPS.

Genus 6. MELANTHRIPS.

Melanthrips, *Hal. Ent. Mag.* iii. 450.

Melanothrips, *Burm. Handb. Ent.* ii. 417. *Amyot et Serv.*

Antennæ distincte 9-articulatæ: haustellum breve: palpi maxillares articulis subequalibus: hemelytra margine costali pubescente, venis transversis 3. [Tibiæ anticæ apice dentatæ: terebra a basi parum recurva].

Larva antennis gracilibus 7-articulatis.

1. MELANTHRIPS OBESA.

Melanthrips obesa, *Hal. Ent. Mag.* iii. 450, 1. Melanothrips, *Burm. Handb. Ent.* ii. 417. *Amyot et Serv. Hist. Nat. Hém.* 645.

Atra, hemelytris nigricantibus. Long. $\frac{3}{4}$ lin.

Hab. In floribus *Resedæ* et *Ranunculi*.

Genus 7. ÆOLOTHRIPS.

Æolothrips, *Hal. Ent. Mag.* iii. 451. *Burm., Amyot et Serv.*

Antennæ articulis 5 interioribus majoribus discretis tum quatuor reliquis minutissimis in apiculum attenuatum cum 5to fere confusam compactis: haustellum longiusculum teres: palpi maxillares sat longi geniculati articulo apicali brevissimo. [Oculi versus os producti: tibiæ anticæ inermes. *Fæminæ* abdominis apice subreflexa terebra recurva].

Sub-g.

Alæ { completæ	1. COLEOTHRIPS.
abortivæ	2. ÆOLOTHRIPS.

Sub-genus 1. COLEOTHRIPS.

Coleothrips, *Hal. Ent. Mag.* iii. 451. *Burm., Amyot et Serv.*

Corpus convexiusculum : pterothorax latus subquadratus : Alæ completæ, hemelytra margine costali glabro, venis transversis

4. *Mas.* abdominis lateribus appendiculatis.

Larva antennis fere conformibus.

1. COLEOTHRIPS FASCIATA.

Thrips fasciata, *Linn. Syst. Nat.* ii. 743, 5. *Faun. Suec.* 1030.

Deg. Ins. iii. 18, 4. *Geoff. Ins. Par.* i. 385, 3. *Sulz. Ins.* pl.

7, f. 48, b. *Fabr. Sp. Ins.* ii. 397, 6. *Mant. Ins.* ii. 320, 6.

Ent. Syst. iv. 229, 5. *Syst. Rhyn.* 314, 7.

Æolothrips C. fasciata, *Hal. Ent. Mag.* iii. 451, 1.

Æolothrips fasciata, *Burm. Handb. Ent.* ii. 417, 1.

Coleothrips fasciata, *Amyot et Serv, Hist. Nat. Hém.* 646, 1.

Nigra, hemelytrorum basi fascia et apice albis : antennis basi albidis abdominis basi et apice et pedibus piceis, *fæm.* Nigro-fusca, abdominis basi subrufæ, antennis basi albidis, pedibus piceo pallidis, *mas.* Long. *fæm.* $\frac{3}{4}$ — $\frac{2}{3}$ lin.

a, b. England. Presented by F. Walker, Esq.

2. COLEOTHRIPS MELALEUCA.

Nigra, hemelytrorum basi macula costæ mediæ et apice albis. antennarum articulo 3tio elongata albido, *fæm.* Long. 1 lin.

3. COLEOTHRIPS VITTATA.

Æolothrips C. vittata, *Hal. Ent. Mag.* iii. 451, 2.

Æolothrips vittata, *Burm. Handb. Ent.* ii. 418, 2.

Coleothrips vittata, *Amyot et Serv. Hist. Nat. Hém.* 646, 2.

Nigra, hemelytrorum basi et costæ dimidio exteriori albis ; antennis medio albidis, *fæm.* Long. $\frac{3}{4}$ lin.

Sub-genus 2. *ÆOLOTHRIPS*.

Æolothrips, *Hal. Ent. Mag.* iii. 451. *Burm., Amyot et Serv.*

Corpus teres: pterothorax constrictus: alarum nonnisi rudimenta.

1. *ÆOLOTHRIPS ALBICINCTA*.

Æolothrips albicincta, *Hal. Ent. Mag.* iii. 451, 3. *Burm. Handb. Ent.* ii. 418, 3. *Amyot et Serv. Hist. Nat. Hém.* 646.

Atra, abdominis apice ferrugineo, antennis versus basin et abdominis cingulo antico albis, *fæm.* Long. 1 lin.

a. England. Presented by F. Walker, Esq.

SUPPLEMENT.

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For 3us subundatus read 4us subundatus.

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30. PLATYPLEURA INTERNA.

Nercus transversus 1us fere rectus, obliquus, angulum valdè obtusum fingens, 2o plus quadruplo ejus longitudine divisus; 2us fere rectus, valdè obliquus, angulum perobtusum fingens, 1o duplo longior; 3us vix undatus, obliquus, angulum acutum fingens; 4us arcuatus, subobliquus, angulum acutum fingens, 3i longitudine.

This species most resembles *P. semilucida*; and the two, like *P. gemina*, *P. basifolia*, *P. punctigera*, *P. brevis*, and *P. simplex*, have the sides of the fore-chest somewhat dilated and angular, and are near allied to *Oxypleura*, which genus is also connected with *Platypleura* by means of *O. clara*, and joins *Zammara* through *O. Polydorus*.

Second marginal areolet shorter than the first; first cross-vein almost straight, slanting, forming a very obtuse angle, parted from the second by more than four times its length; second almost straight, very slanting, forming an extremely obtuse angle, twice the length of the first; third hardly waved, slanting, forming an acute angle; fourth curved outward, slightly oblique, forming an acute angle, as long as the third; fifth much curved outward, upright, forming an almost right angle. Body green, tawny here and there: head much narrower than the fore-chest, adorned above

with an irregular black band, which includes four spots; cavity of face black, and with black transverse furrows on each side: mouth yellow with a black tip, reaching beyond the hind-hips: eyes hardly prominent: fore-chest with five black stripes, the middle one widened behind, longer than the other four; hind scutcheon widened but hardly angular on each side: scutcheon of middle chest with four black marks, the outer pair long-obconical, their tips almost joining a black band, which sends forth a dart-shaped black stripe between the inner marks, the latter are short-obconical; hind border slightly excavated: abdomen black, a little longer than the chest: legs slightly marked with black: fore-wings adorned with gilded down, brown, with some tawny spots for more than half the length from the base, with two short, oblique, irregular, connected brown bands, and with a row of connected brown spots along the hind border: a colourless spot on the front areolet: veins green, tawny towards the tips: hind-wings tawny, brown towards the tips, which with the hind border are colourless. Length of the body 9 lines; of the wings 31 lines.

a. North India. From the East India Company's collection.

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2. DUNDUBIA OBTECTA.

j. Java. From the East India Company's collection.

4. DUNDUBIA VAGINATA.

f, g. Java. From the East India Company's collection.

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7. DUNDUBIA VARIANS.

a. Silhet. From the Rev. J. Stainforth's collection.

This may be the male of *D. chlorogaster*.

8. DUNDUBIA LINEARIS.

a, b. ——— ?

Var? Forewings not tinged with green; first cross-vein but slightly curved; second rather short and upright; fourth shorter than usual and not angular.

c. Silhet. From the Rev. J. Stainforth's collection.

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21. FIDICINA IMMACULATA.

a. North Bengal. From Miss Campbell's collection.

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26. FIDICINA TIBICEN.

This species is very variable in the colour and markings of the chest, and in the clouding and mutual distance of the first and second cross-veins.

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31. FIDICINA INTERNATA.

b. New Holland. Presented by the Haslar Hospital.

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35. FIDICINA BICOLOR.

Nervus transversus 1us subundatus, perobliquus, angulum vix fingens, 2o ferè quadruplo ejus longitudine divisus; 2us vix undatus, perobliquus, angulum vix fingens, 1o multò brevior; 3us fere rectus, vix obliquus, angulum rectum fingens; 4us undatus, obliquus, angulum vix acutum fingens.

Second marginal areolet a little longer than the first; first cross-vein slightly waved, extremely oblique, hardly forming an angle, parted from the second by almost four times its length; second hardly waved, extremely oblique, hardly forming an angle, much shorter than the first; third almost straight, hardly oblique, forming a right angle; fourth waved, oblique, forming a hardly acute angle, longer than the third; fifth curved outward, upright, forming a hardly acute angle. Body pitchy black, ferruginous beneath: head a little broader than the fore-chest; face slightly convex, not prominent: mouth reaching a little beyond the middle hips: sides of the fore-chest slightly concave in the middle, slightly convex in front, slightly concave behind: abdomen with a

black stripe beneath : drums irregularly triangular, extending a little beyond half the abdomen, concave on the inner side and conical towards the tips, which are slightly rounded : fore-thighs armed with two long, sharp teeth : wings slightly gray, dark brown along the fore border and about the first and second cross-veins ; veins black, pitchy towards the base. Length of the body 16 lines ; of the wings 56 lines.

a. Java. From the East India Company's collection.

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Genus 12. CICADA.

Nearly all the species which are mentioned in this catalogue may be divided into the following groups.

Group 1. (Sp. 1—9, 11—14).

Of large size, with broad heads, prominent eyes, and with the chest slightly dilated and angular on each side.

Group 2. (Sp. 10, 15, 17).

Body linear, somewhat quadrate : head broad : eyes prominent : sides of the fore-chest somewhat rounded : hind-scutcheon broad.

Group 3. (Sp. 16).

Body linear : head broad : eyes rather prominent : sides of the fore-chest almost linear.

Group 4. (Sp. 18, 20, 97, 104, 105, 112—141, 144—146, 151, 152, 155, 156, 166.)

Body more or less spindle-shaped : head small, much narrower than the chest : eyes not prominent : sides of the fore-chest concave in the middle, convex in front and behind.

Group 5. (Sp. 19).

Head a little narrower than the chest : hind-scutcheon narrow, forming a distinct angle on each side.

Group 6. (Sp. 21).

Head very little narrower than the chest, almost triangular, slightly produced in front, whose sides are almost straight ; sides of the fore-chest convex in the middle.

Group 7. (Sp. 57, 82, 87, 90, 93—95).

Body generally short: head almost as broad as the chest: eyes more or less prominent: sides of the hind scutcheon rounded or slightly angular by the base of each fore-wing.

Group 8. (Sp. 83—86, 91, 92, 96, 98—101, 106, 142, 143, 147, 150, 157—160, 162, 163, 167, 185, 189—194).

Body rather narrow: head a little narrower than the chest: eyes not prominent: fore-chest almost linear excepting the hind-scutcheon, which is widened and rounded by the base of each fore-wing.

Group 9. (Sp. 102, 103).

Body rather narrow: head as broad as the chest: eyes prominent: sides of the fore-chest almost linear: hind-chest widened and rounded by the base of each fore-wing.

Group 10. (Sp. 109—111, 153, 161, 165).

Like Group 8, but more slender and of small size: eyes more prominent.

Group 11. (Sp. 154, 164).

Head very small.

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16. CICADA FRAXINI.

Cicada Fraxini, *Germ. Thon. Arch.* ii. 2, 4, 46. *Herr.-Schæff. Faun.* cxliv. 1. *Siebold, Ent. Zeit. Stett.* viii. 16, 6.

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53. *CICADA VIRIDICOLLIS* ? Fœm.

Cicada viridicollis ? *Germ. Silb. Rev. Ent.* ii. 62, 17.

Nervus transversus 1us valdè arcuatus, obliquus, angulum obtusum fingens, 2o ejus longitudine divisus ; 2us subcurvus, obliquus, angulum acutum fingens, 1o multo brevior ; 3us subundatus, obliquus, angulum vix acutum fingens ; 4us vix undatus, obliquus, angulum vix acutum fingens, 3i longitudine.

Second marginal areolet about one-fourth shorter than the first ; first cross-vein much curved outward along the lower half, slanting, forming a slightly obtuse angle, parted from the second by its own length ; second very slightly curved, slanting, forming an acute angle, shorter than the first ; third slightly curved, oblique, forming a hardly acute angle ; fourth almost straight, oblique, forming a hardly acute angle, as long as the third ; fifth much curved outward, almost upright, forming a hardly acute angle. Testaceous, clothed with short pale hairs : head a little narrower than the fore-chest ; face rather prominent, short-conical : eyes not prominent : mouth reaching the hind-bips : chest grass-green, with a tawny tinge : sides of the fore-chest almost straight ; hind-scutcheon hardly widened on each side : hind-border of the middle-chest hardly concave : abdomen almost obconical, compressed and pointed at the tip, much longer than the chest : legs green : wings colourless ; fore border and veins green, darker towards the tip. Length of the body 12 lines ; of the wings 32 lines.

a. ——— ?

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62. *CICADA PASSERCULUS*.

b. Ega, on the Amazon. From Mr. Stevens' collection.

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64. *CICADA SPINICOSTA*.

d. Ega, on the Amazon. From Mr. Stevens' collection.

*Page 151.*89. *CICADA URENS.*

The name of this species is changed to distinguish it from *C. torrida*, *Erichson*.

*Page 159.*97. *CICADA ZEALANDICA.*

Var. Second marginal areolet a little longer than the first; first cross-vein almost straight, very slanting, hardly forming an angle, parted from the second by about twice its length; second almost straight, very slanting, hardly forming an angle, a little shorter than the first; third almost straight, slanting, forming a very acute angle; fourth almost straight, slightly oblique, forming a hardly acute angle, a little longer than the third; fifth very slightly curved, oblique, forming an obtuse angle. Body luteous, varied with green: head with a short, broad, irregular black band on the crown; face with a black stripe, which is forked towards the crown; epistoma with two black stripes: fore-chest with eight black stripes; the middle pair united behind, and sending forth a short branch along the furrow on each side; the second pair almost U-shaped; the third pair slanting and united to the outermost, which extend along the sides of the hind-scutcheon; the latter is concave on each side; middle-chest with four obconical black stripes, the inner pair short and compact, the outer pair long, curved, and much intersected; some black marks near the hind border, which is slightly concave: abdomen with black bands; underside mostly black at the base, at the tip, and along each side: thighs striped with black; middle-shanks and hind-feet with black bands; fore-shanks black, tawny at the base; anterior feet black: wings colourless; veins black, bright red towards the base; first and second cross-veins and the longitudinal vein between them clouded with dark brown.

b. New Zealand. From Mr. Stevens's collection.

*Page 160.*99. *CICADA ALBIDA.*

d. Ega, Amazon River. From Mr. Stevens' collection.

101. CICADA ORNI.

Cicada Orni, Ratz. *Forst. Ins.* iii. pl. 11, f. 1, F. Siebold, *Ent. Zeit. Stett.* viii. 13, 3.

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119. CICADA CIRCUMDATA.

Tettigonia marginata, Leach.

The name of this species is altered to distinguish it from *C. marginata*, Olivier.

f—h. New Holland.

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182. CICADA HÆMATODES.

Cicada hæmatodes, Schæff. *Icon. Ins. Ratisb.* pl. 121, f. 1, 2. Roes. *Ins.* ii. *Locust*, pl. 25, f. 3. Stoll, *Cic.* pl. —, f. 133. Siebold, *Ent. Zeit. Stett.* viii. 8, 1. Fischer, *Ent. Zeit. Stett.* viii. 238.

Tettigonia tibialis, Panz. *Faun. Ins. Germ.* lix. 5.

Dele Cicada sanguinea, Germ.

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185. CICADA ANNULATA.

a. Isle of Paros. Presented by Prof. E. Forbes.

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191*. CICADA LIMITATA.

Nervus transversus 1us rectus, ferè erectus, angulum vix obtusum fingens, 2o plus triplo ejus longitudine divisus; 2us ferè rectus, subobliquus, angulum obtusum fingens, 1o paullo longiori; 3us ferè rectus, obliquus, angulum rectum fingens; 4us rectus, obliquus, angulum vix acutum fingens, 3o brevior; 5us subcurvus, erectus, angulum ferè rectum fingens.

Cicada limitata, Germar.

Nearly allied to *C. signifera*, and one of the group which is distinguished by the shortness of the first and second marginal areo-

lets: second marginal areolets about as long as the first: first cross-vein straight, almost upright, forming a hardly obtuse angle, parted from the second by more than thrice its length; second indistinctly curved outward, slightly oblique, forming an obtuse angle, a little longer than the first; third almost straight, oblique, forming a right angle; fourth straight, oblique, forming a hardly acute angle, shorter than the third; fifth hardly curved outwards, almost upright, forming a right angle.

a. Cape. From M. Dregé's collection.

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204. *CICADA ÆSTUANS*.

Cicada æstuans, Lucas, *Explorat. Scient. Alger. Atlas*, pl. 4, f. 6. Algiers.

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207. *CICADA CONCINNA*.

Cicada concinna, Germ. *Mag. Ent.* iv. 98, 10. *Faun. Ins. Eur.* xiii. 17. Siebold, *Ent. Zeit. Stett.* viii. 9, 2.
Cicada Orni? Sulz. *Ins.* pl. 10, f. 65.
Tettigonia hæmatodes? Füßly, *Schw. Ins.* 452.
 Germany, Dalmatia, Podolia.

209. *CICADA ALGIRA*.

Cicada Algira, Lucas, *Explorat. Scient. Alger. Atlas*, pl. 4, f. 5. Algiers.

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217. *CICADA OBSCURA*.

Cicada obscura, Germ. *Thon. Arch.* ii. 2, 4, 49. Siebold, *Ent. Zeit. Stett.* viii. 16, 5.
 Germany.

223. *CICADA CANTANS.*

Cicada cantans, *Lucas, Explorat. Scient. Alger. Atlas, Hém.* pl. 4, f. 4.

Algiers.

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225. *CICADA SANGUINEA.*

Cicada, &c., *Rösel, Ins.* ii. *Locust*, pl. 25, f. 3.

Tettigonia sanguinea, *Fabr. Syst. Rhyn.* 39, 31.

Cicada hæmatodes, *Scop. Ent. Carn.* 118, 447.

Tettigonia hæmatodes, *Panz. Faun. Ins. Germ.* 4, 21.

Cicada sanguinea, *Germ. Silb. Rev. Ent.* ii. 58, 5. *Siebold, Ent. Zeit. Stett.* viii. 15, 4.

Cicada helvola, *Germ. Mag. Ent.* iv. 99, 12. *Thon, Arch.* 4, 48.

Cicada plebeia, *Germ. Thon. Arch.* 4, 47.

a—d. South of France.

e—f. Tuscany.

226. *CICADA TORRIDA.*

Cicada torrida, *Erichs. Arch.* 1842, i. 286.

Van Diemen's Land.

227. *CICADA PRUINOSA.*

Cicada pruinosa, *Say, Journ. Acad. Nat. Sci. Philad.* iv. 330, 1, (1825).

United States.

228. *CICADA MARGINALIS.*

Cicada marginata, *Say, Journ. Acad. Nat. Sci. Philad.* iv. 330, 2, (1825).

Missouri.

The name of this species is altered to distinguish it from *C. marginata*, *Olivier*.

229. *CICADA DORSATA.*

Cicada dorsata, Say, *Journ. Acad. Nat. Sci. Philad.* iv. 330, 3.
Missouri.

230. *CICADA AURIFERA.*

Cicada aurifera, Say, *Journ. Acad. Nat. Sci. Philad.* iv. 332, 4.
Missouri.

231. *CICADA PARVULA.*

Cicada parvula, Say, *Journ. Acad. Nat. Sci. Philad.* iv. 333, 5.
Missouri; Rocky Mountains.

232. *CICADA SYNODICA.*

Cicada synodica, Say, *Journ. Acad. Nat. Sci. Philad.* iv. 334, 6.
Rocky Mountains.

233. *CICADA HIEROGLYPHICA.*

Cicada hieroglyphica, Say, *Journ. Acad. Nat. Sci. Philad.* vi.
235, 1.
Pennsylvania, New Jersey.

234. *CICADA RIMOSA.*

Cicada rimosa, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 235, 2.
Missouri; Arkansas.

235. *CICADA VITRIPENNIS.*

Cicada vitripennis, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 236, 3.
Arkansas.

236. *CICADA NIGROVIRIDIS*, Fem.

Nervus transversus 1us ferè rectus, valdè obliquus, angulum perobtusum fingens, 2o triplo ejus longitudine divisus; 2us ferè rectus valdè obliquus, angulum perobtusum fingens, 1o multo brevior; 3us rectus, erectus, angulum subobtusum fingens; 4us rectus, obliquus, angulum vix acutum fingens, 3i longitudine.

Second marginal areolet a little shorter than the first; first cross-vein almost straight, very oblique, forming an extremely obtuse angle, parted from the second by thrice its length; second almost straight, very oblique, forming an extremely obtuse angle, much shorter than the first; third straight, erect, forming a slightly obtuse angle; fourth straight, oblique, forming a hardly acute angle, as long as the third; fifth straight, slightly oblique, forming an almost right angle. One of the short-winged species: body black, clothed with white hairs; borders of the segments mostly green: head a little narrower than the chest; a green spot on the front, which is convex, not prominent: mouth green with a black tip, reaching the hind-hips: eyes not prominent: sides of the fore-chest straight; hind-scutcheon mostly green, widened and rounded on each side, where it extends much beyond the anterior part: hind-border of middle-chest convex: abdomen longer than the chest, compressed at the tip: legs green, marked with black; feet black; wings colourless; veins tawny, black at the base and at the tip; fore-border green, brown towards the tip. Length of the body 9 lines; of the wings 18 lines.

a, b. South Africa. Presented by Dr. A. Smith.

237. *CICADA INTACTA*, Fem.

Nervus transversus 1us subcurvus, subobliquus, angulum obtusum fingens, 2o quadruplo ejus longitudine divisus; 2us rectus, ferè erectus, angulum obtusum fingens, 1o multo brevior; 3us rectus, obliquus, angulum acutum fingens; 4us subcurvus, obliquus, angulum subacutum fingens, 3o longior.

Allied to *C. nitida*, Deg.

Second marginal areolet about two-thirds of the length of the first; first cross-vein slightly curved outward, slightly oblique, form-

ing an obtuse angle, parted from the second by about four times its length; second straight, almost upright, forming an obtuse angle, much shorter than the first; third straight, oblique, forming an acute angle; fourth slightly curved inward, oblique, forming an acute angle, much longer than the third; fifth slightly curved outward, slightly oblique, forming a hardly obtuse angle. Allied to *C. Cuna*. Body pale green: head a little narrower than the chest; suture between the crown and the front very distinct; front rather convex: mouth with a black tip, reaching the hind-hips: eyes not prominent: fore-chest very slightly convex on each side: hind-scutcheon almost angular by the base of each fore-wing: disk of the middle-chest slightly buff; hind-border slightly concave: abdomen pale red, longer than the chest; hind-borders of the segments green: legs pale luteous, partly green; fore-thighs armed with four teeth, one very oblique, near the base, longer than the second and third, which are more upright and near the tip; fourth still nearer the tip, very small: wings colourless; veins black, green towards the base. Length of the body 7 lines; of the wings 22 lines.

a. ———? From Mr. Shuckard's collection.

238. CICADA LEUCOTHOE.

Nervus transversus 1us rectus, ferè erectus, angulum subobtusum fingens, 2o plus triplo ejus longitudine divisus; 2us rectus, ferè erectus, angulum obtusum fingens, 1o longior; 3us rectus, obliquus, angulum acutum fingens; 4us ferè rectus, obliquus, angulum subacutum fingens, 3o longior; 5us subcurvus, ferè erectus, angulum subrectum fingens.

Second marginal areolet three-fourths of the length of the first; first cross-vein straight, almost upright, forming a very slightly obtuse angle, divided from the second by more than thrice its length; second straight, almost upright, forming an obtuse angle, longer than the first; third straight, oblique, forming an acute angle; fourth almost straight, oblique, forming a very slightly acute angle, longer than the third; fifth very slightly curved outward, almost erect, forming an almost right angle. Body slender, pale red: head with two black bands on the crown, and with two black stripes on the face: eyes prominent; fore-chest with a green stripe between two black stripes; sides almost straight; hind-scutcheon narrow: middle-chest with five black spots, two in front, one in the middle, and two on the hind-border, which is convex: abdomen longer than the chest: oviduct extending beyond the tip: fore-thighs armed

with three sharp, oblique, rather long, black teeth: wings whitish: veins pale red, black towards the tips. Length of the body 6 lines; of the wings 18 lines.

a. Parà. From Mr. Stevens' collection.

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11. CEPHALOXYS UNICOLOR, Fem.

Nervus transversus 1us ferè rectus, obliquus, angulum acutum fingens, 2o plus triplo ejus longitudine divisus; 2us vix arcuatus, obliquus, angulum vix acutum fingens, 1o paullò longior; 3us ferè rectus, obliquus, angulum acutum fingens; 4us ferè rectus, subobliquus, angulum rectum fingens, 3o vix brevior.

Second marginal areolet about one-fourth shorter than the first; first cross-vein almost straight, oblique, forming an acute angle, parted from the second by more than thrice its length; second hardly curved, oblique, forming a hardly acute angle, a little longer than the first; third almost straight, oblique, forming an acute angle; fourth almost straight, slightly oblique, forming a right angle, hardly shorter than the third; fifth hardly curved outward, upright, forming a right angle. Body slender, pale luteous; front short-conical, as long as it is broad: wings colourless: veins pale luteous. Length of the body 6 lines; of the wings 18 lines.

a. Java. From the East India Company's collection.

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9. CARINITA ARGENTEA.

Nervus transversus 1us arcuatus, subobliquus, angulum vix acutum fingens, 2o duplo ejus longitudine divisus; 2us subundatus, obliquus, angulum acutum fingens, 1o paullò longior; 3us ferè rectus, obliquus, angulum acutum fingens; 4us subarcuatus, obliquus, angulum acutum fingens, 3o vix brevior.

Second marginal areolet less than twice the length of the first; first cross-vein curved outward, very slightly oblique, forming a hardly acute angle, parted from the second by twice its length; second very slightly undulating, oblique, forming an acute angle, a

little longer than the first; third almost straight, oblique, forming an acute angle; fourth very slightly curved inward, oblique, forming an acute angle, almost as long as the third; fifth much curved outward, almost upright, forming an almost right angle. Tawny, partly green: head and underside mostly black: sutures of the fore-chest and borders of the usual obconical marks on the middle chest black: abdomen ferruginous; fore borders of the segments silvery; two filaments at the tip: legs pale ferruginous, marked with black: wings colourless: tips of the wings and of the flaps brown; veins black. Length of the body 9 lines; of the wings 28 lines.

a. Ega, on the Amazon. From Mr. Stevens' collection.

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4. *TETTIGOMYIA TABANIFORMIS.*

d, e. South Africa. From Mr. Argent's collection.

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5. *MOGANNIA AVICULA.*

Java. From the East India Company's collection.

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Genus *CYSTOSOMA.*

Subgenus *CHLOROCYSTA*, *Amyot, MSS.*

2. *CYSTOSOMA VITRIPENNIS.*

Cystosoma vitripennis, *Westw. Ann. Nat. Hist. Ser. 2, vii. 208.*
New Holland.

Page 262.

1. *FULGORA LATERNARIA.*

Fulgora laternaria, *Wesmael, Bull. Acad. Roy. Sci. Bruxel. iv. 1837,*
136.

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32. APHÆNA SANGUINALIS.

Aphæna sanguinalis, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 208.
Ceylon.

33. APHÆNA MADAGASCARIENSIS.

Aphæna Madagascariensis, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 208.
Madagascar.

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OMALOCEPHALA PLANIROSTRIS.

This is a species of *Ledra*. See p. 816.

4. OMALOCEPHALA MOROSA.

Omalocephala morosa, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 208.
Port Natal.

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For 10. *LYSTRA TEREBRIFERA*, read 10. *LYSTRA TENEBRIFERA*.

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5. DICHOPTERA HERBIDA.

b. Brazil.
c. ———?

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11. DICTYOPHORA NOCTIVIDA.

Fulgora noctivida, *Oliv. Enc. Méth.* vi. 570, 13.

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Genus 4. SCOLOPS.

Scolops, *Schaum*.

1. SCOLOPS SULCIPES.

Fulgora sulcipes, *Say, Journ. Acad. Nat. Sci. Philad.* iv. 335.
Arkansaw.

Page 341.

10. CIXIUS NERVOSUS.

Cixius nervosus, *Latr. Hist. Nat. Ins.* xii. 311. *Zett. Faun. Ins.*
Lapp. i. 546, 1.
Flata nervosa, *Panz. Faun. Ins. Germ.* cciii. 6.
Cixius Cynosbatis, *Zett. Faun. Ins. Lapp.* i. 547, 2.

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Transfer Var.? Niger, &c., to p. 348, under Cixius flavisigna.

34. CIXIUS QUINQUELINEATUS.

Cixius quinque-lineatus, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 241.
United States.

35. CIXIUS STIGMATUS.

Cixius stigmatus, *Say, Journ. Acad. Nat. Sci. Philad.* iv. 336.
United States.

36. CIXIUS PINI.

Cixius Pini, *Fitch, The Senate*, No. 30, 45.
United States.

37. CIXIUS IMPUNCTATUS.

Cixius impunctatus, *Fitch, The Senate*, No. 30, 46.
United States.

38. CIXIUS? SERRATULÆ.

Entæniothes Serratulæ, *Fabr. Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 166, 391.

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Genus 8*. PLECTODERES.

Plectoderes, *Spinola, Ann. Soc. Ent. Fr. viii.* 328.

1. PLECTODERES COLLARIS.

Plectoderes collaris, *Spinola, Ann. Soc. Ent. Fr. viii.* 328.

Flata collaris, *Fabr. Syst. Rhyn.* 53, 42.

Cixia collaris, *Burm. Handb. Ent.* ii. 1, 157.

a. ——— ?

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1. ALLELOPLASIS DARWINII.

a. Australia. Presented by C. Darwin, Esq.

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52. DELPHAX ARVENSIS.

Delphax arvensis, *Fitch, The Senate*, No. 30, 46.

United States.

53. DELPHAX DORSALIS.

Delphax dorsalis, *Fitch, The Senate*, No. 30, 46.

United States.

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44. ISSUS ALGIRICUS.

Issus algiricus, *Lucas, Explorat. Scient. Alger. Atlas*, pl. 4, f. 9.

Algiers.

45. ISSUS ELLIPTICUS.

Testaceus ; alæ anticæ venosæ ; alæ posticæ sublimpidæ.

Testaceous : head small, much narrower than the chest ; crown narrow, much longer than broad, forming a conical compartment, with a rim along the border, extending along the disk of the front to the face ; face scutcheon-shaped, widening towards the epistoma, extremely minutely striated across, with three longitudinal ridges, the side pair slightly curved ; epistoma short-conical, bordered by a rim : shield very short : fore-wings with very strongly marked longitudinal veins, between which are many pale, straight, slight cross-veins : hind-wings almost colourless. Length of the body $2\frac{1}{2}$ lines ; of the wings 5 lines.

a. Philippine Islands. From Mr. Wood's collection.

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29. EURYBRACHIS CRUDELIS.

Eurybrachis crudelis, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 208.
Ceylon.

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9. DERBE SUBSTRIGILIS.

Derbe substrigilis, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 209.
Brazil.

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5. PHENICE TESSELLATA.

Derbe (Phenice) tessellata, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 209.
Sierra Leone.

6. PHENICE? BICLAVATA.

Derbe (Phenice?) biclavata, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 209.
Derbe biclavata, p., 397.

7. PHENICE MÆSTA.

Derbe (Phenice) mæsta, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 209.
 Derbe mæsta, p. 397, 7.

East Indies.

8. PHENICE? DILATATA.

Derbe (Phenice?) dilatata, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 209.
 Derbe dilatata, p. 397.

a. Sierra Leone.

9. PHENICE? CARNOSA.

Derbe (Phenice?) carnosa, *Westw. Ann. Nat. Hist. Ser. 2*, vii. 210.
 East Indies.

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4. THRACIA ESSINGTONII.

Derbe (Thracia) Essingtonii, *Westw. Ann. Nat. Hist. Ser. 2*, vii.
 210.
 Derbe Essingtonii, p. 396.

5. THRACIA PTEROPHOROIDES.

Derbe (Thracia) Pterophoroides, *Westw. Ann. Nat. Hist. Ser. 2*,
 vii. 210.
 Ceylon.

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2. OTIOCERUS COQUEBERTII.

Otiocerus Coquebertii, Var. a. b., *Fitch, The Senate*, No. 30, 46.

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8. OTIOCERUS KIRBYII.

Otiocerus Kirbyii, *Fitch, The Senate*, No. 30, 46.
 New York.

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FLATA MARIA et F. COMPLETA.

These two are perhaps varieties of one species, and the latter is the type of the F. Maria of White.

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71. PÆCIOPTERA? BIVITTATA.

Flata bivittata, *Say, Journ. Acad. Nat. Sci. Philad.* iv. 335, 1.
Pennsylvania ; Missouri.

72. PÆCIOPTERA STIGMATA.

Flata stigmata, *Say, Journ. Acad. Nat. Sci. Philad.* 336, 2.
Missouri.

73. PÆCIOPTERA? NAVA.

Flata nava, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 238, 3.
Indiana.

74. PÆCIOPTERA? OPACA.

Flata opaca, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 239, 4.
Indiana, Lake Erie.

75. PÆCIOPTERA? PALLIDA.

Flata pallida, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 240, 5.
Pennsylvania, Florida.

76. PÆCIOPTERA? BULLATA.

Flata bullata, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 240, 6.
United States.

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77. PÆCILOPTERA? QUINQUELINEATA.

Flata quinqueleineata, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 241, 7.
New Jersey.

78. PÆCILOPTERA? HUMILIS.

Flata humilis, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 241, 8.
Pennsylvania.

81. PÆCILOPTERA? CONICA.

Flata conica, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 238, 2.
Indiana.

82. PÆCILOPTERA? VULGARIS.

Pæcilopectera? vulgaris, *Fitch, The Senate*, No. 30, 47.
United States.

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Dele Xerophyllum. X. *Servillei* is Orthopterous, of the genus
Hymenotes, *Westw.*

38. PTYELUS MISPACHATHUS.

Mispachathus, *Amyot, Ann. Soc. Ent. Fr. 2me Série*, v. 194, 427.
France, Italy.

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18. CERESA BUBALUS.

Ceresa bubalus, Var. *a. b.*, *Fitch, The Senate*, No. 30, 50.

Page 533.

34. CERESA? TARTAREA.

Membracis tartarea, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 242, 1.
Pennsylvania.

35. CERESA? SEMICURVA.

Membracis semicurva, *Say, Journ. Acad. Nat. Sci. Philad.* vi.
242, 2.
Florida.

36. CERESA? CALVA.

Membracis calva, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 242, 3.
Pennsylvania.

37. CERESA? GONIPHORA.

Membracis goniphora, *Say, Journ. Acad. Nat. Sci. Philad.* vi.
243, 4.
Missouri.

38. CERESA? FESTIVA.

Membracis festiva, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 243, 5.
Florida.

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11. SMILIA AURICULATA.

Smilia auriculata, *Fitch, The Senate*, No. 30, 49.
New York.

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3. ENTILIA SINUATA.

Subspecies, *E. torva*, *Fitch, The Senate*, No. 30, 47.
New York.

5. ENTYLIA CONCAVA.

Entylia concava, *Say, Append. Long's Exp.* 301. *Fitch, The Senate*,
No. 30, 47.

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13. THELIA LUTEA.

Centrotus inermis? *Fabr. Ent. Syst.* iv. 15.

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16. THELIA VAU.

Smilia Vau, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 299, 6, Var.
a—j. Fitch, The Senate, No. 30, 48.

Thelia semifascia, 561, 16.

Pennsylvania.

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30. THELIA ACUMINATA.

Centrotus acuminatus, *Fabr. Mas.*

Membracis bimaculata, *Fabr. Fœm.*

See p. 566.

42. THELIA INORNATA.

Smilia inornata, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 299, 7, Var.
a. Fitch, The Senate, No. 30, 48.

Pennsylvania.

43. THELIA? SUBULATA.

Membracis subulata, *Say, Journ. Acad. Nat. Sci. Philad.* vi.
300, 8.
Maryland.

44. THELIA? QUADRIVITTATA.

Membracis quadrivittata, *Say, Journ. Acad. Nat. Sci. Philad.* vi.
300, 9.
Maryland.

45. THELIA? BELLIGERA.

Membracis belligera, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 302,
13.
Pennsylvania, Florida.

46. THELIA? VITTATA.

Subspecies, *Smilia guttata*, *Fitch, The Senate*, No. 30, 49.
Thelia camelus? p. 562, 19.

47. THELIA QUERCUS.

Smilia Quercûs, *Fitch, The Senate*, No. 49.
New York.

48. THELIA CASTANEÆ.

Smilia Castaneæ, *Fitch, The Senate*, No. 30, 49.
New York.

49. THELIA? UNIVITTATA.

Thelia univittata, *Harris, Inj. Ins. New Engl.* 180.
United States.

50. THELIA? CRATÆGI.

Thelia Cratægi, *Fitch*, *The Senate*, No. 30, 52.
New York.

51. THELIA? SINUATA.

Membracis sinuata, *Fabr.*

Membracis? *emarginata*, *Fabr. Ent. Syst. Suppl.* 513, 4. *Syst. Rhyn.* 9, 12.

United States.

Genus CARANOTA.

Caronata, *Fitch*, *The Senate*, No. 30, 48.

Membracis, p., *Say*.

“Head broad, triangular: thorax in form of a half cone, not compressed above into a sharp or foliaceous edge: elytra with five terminal areolets, the apical triangular with its end rounded: border broad, slightly wrinkled: veins strong, elevated. Allied to *Gargara*, from which genus, however, the species are excluded by the form of the head and of the apical areolet.”

1. CARANOTA MERA.

Membracis mera, *Say*, *Journ. Acad. Nat. Sci. Philad.* vi. 301, 10.
Pennsylvania.

2. CARANOTA ARCUATA.

Membracis arcuata, *Say*, *Journ. Acad. Nat. Sci. Philad.* vi. 302, 12.
Pennsylvania.

Genus TELAMONA.

Telamona, *Fitch, The Senate*, No. 30, 50.

Thelia, p., *Fairm.*

“Humeral angles projecting, pointed and ear-like: dorsum compressed, foliaceous, the keel abruptly elevated at one or both its ends, forming a somewhat square crest or foliole: thorax nearly or quite reaching the tips of the elytra, with elevated longitudinal lines on each side; apical areolet triangular, its end rounded. The rather square dorsal crest forms a marked distinction between this genus and Thelia, to which it is most nearly related.”

1. TELAMONA QUERCUS.

Telamona Quercûs, *Fitch, The Senate*, No. 30, 51.

Thelia cyrtops, *Fairm.* See p. 565, 31.

2. TELAMONA RECLIVATA.

Telamona reclivata, *Fitch, The Senate*, No. 30, 51.

New York.

3. TELAMONA CORYLI.

Telamona Coryli, *Fitch, The Senate*, No. 30, 51.

New York.

4. TELAMONA TRISTIS.

Telamona tristis, *Fitch, The Senate*, No. 30, 51.

New York.

5. TELAMONA AMPELOPSIDIS.

Thelia Ampelopsidis, *Harris, Inj. Ins. New Engl.* 180.

Telamona Ampelopsidis, *Fitch, The Senate*, No. 30, 51.

United States.

6. TELAMONA FAGI.

Telamoni Fagi, *Fitch, The Senate*, No. 30, 51.
New York.

7. TELAMONA CONCAVA.

Telamona concava, *Fitch, The Senate*, No. 30, 50.
New York.

8. TELAMONA FASCIATA.

Telamona fasciata, *Fitch, The Senate*, No. 30, 50.
New York.

9. TELAMONA UNICOLOR.

Telamona unicolor, *Fitch, The Senate*, No. 30, 50.
New York.

Genus CYRTOSIA.

Cyrtosia, *Fitch, The Senate*, No. 30, 49.
Membracis, p., *Say*.

“Humeral angles rounded, not salient: dorsum compressed, foliaceous, forming a regularly arched keel, highest near its middle, and at most with a slight concavity posteriorly: apical areolet triangular, its end rounded. Differs from *Smilia*, in having the keel most elevated in its middle instead of anteriorly.”

1. CYRTOSIA MARMORATA.

Membracis marmorata, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 301,
11.
Pennsylvania.

2. CYRTOSIA FENESTRATA.

Cyrtosia fenestrata, *Fitch, The Senate*, No. 30, 49.
New York.

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28. TRAGOPA DORSALIS.

Tragopa dorsalis, *Fitch, The Senate*, No. 30, 52.
New York.

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76. CENTROTUS CARYÆ.

Uroxiphus Caryæ, *Fitch, The Senate*, No. 30, 52.
New York.

77. CENTROTUS FASCIATUS.

Fulvus, punctatus, pilosus, nigro varius; cornua lateralialia valida acuta; cornu posticum breve, piceum, flavo-fasciatum; abdomen nigro fasciatum; alæ anticæ fulvæ, fusco unifasciatæ.

Fem.—Tawny, varied with black, hairy, thickly punctured: crown vertical, irregularly triangular; hind-border slightly concave in the middle, with a very obtuse angle on each side; face short-conical: fore-chest rising almost perpendicularly from the head, with a very indistinct keel, armed with two long acute horns, which are slightly curved backwards, and very slightly inclined upwards; the length of each rather exceeding that of the space between them; hind part long-obconical, with a furrow, not more than one-fourth of the length of the abdomen, pitchy, with a yellow stripe towards the base, yellow towards the tip: abdomen yellowish, with a broad black band above: legs with irregular black bands: fore-wings tawny, punctured at the base and along the veins, with a broad brown band in the middle; veins tawny: hind-wings almost colourless. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

a. Brazil.

CENTROTUS ——— ? (Pupa).

Acanthicus Desmarestii, *DeLap. Ann. Soc. Ent. Fr.* i. 228.

Brazil.

CENTROTUS ——— ? (Pupa).

Acanthicus Stollii, *DeLap. Ann. Soc. Ent. Fr.* i. 228. *Stoll*, pl. 16, f. 85.

Brazil.

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Genus 1. EURYMELA.

A. Fore-wings with a straight suture : hind-shanks with not more than two spines.

a. Last abdominal segment transverse. *Signoret*.

18. EURYMELA BICOLOR.

Eurymela bicolor, *Burm. Gen. Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 503, 1, pl. 17, No. 2, f. 9.

New Holland.

2. EURYMELA RUBROVITTATA.

Eurymela rubrovittata, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 504, 2.

b. Last abdominal segment consisting of two laminæ. *Signoret*.

1. EURYMELA FENESTRATA.

Eurymela fenestrata, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, 505, 3.

19. EURYMELA DISCOIDALIS.

Eurymela discoidalis, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 505, 4.

New Holland.

3. EURYMELA RUFICOLLIS.

Eurymela ruficollis, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii.
506, 5.

8. EURYMELA DISTINCTA.

Eurymela distincta, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii.
506, 6.

Eurymela vicina, *Signoret, Ann. Soc. Ent. Fr. 7*, var.

Eurymela speculum, *Walk.*

4. EURYMELA ERYTHROCNEMIS.

Eurymela erythrocneemis, *Signoret, Ann. Soc. Ent. Fr. 2me Série*
viii. 507, 8.

17. EURYMELA MARMORATA.

Eurymela marmorata, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii.
507, 9.

20. EURYMELA MAURA.

Eurymela maura, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii.
507, 10.

Cicada maura, *Fabr. Ent. Syst.* iv. 40, 57.

Flata maura, *Fabr. Syst. Rhyn.* 51, 27.

New Holland.

B. Fore-wings overlapping: hind-shanks with a double row of
spines. *Signoret.*

9. EURYMELA PULCHRA.

Eurymela pulchra, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii.
508, 11, pl. 17, 11, f. 10.

Eurymela discifera, *Walk.*

21. EURYMELA LINEATA.

Eurymela lineata, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 509, 12, pl. 17, f. 11.

New Holland.

22. EURYMELA ADSPERSA.

Eurymela adpersa, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 510, 13, pl. 17, 11, f. 2.

New Holland.

15. EURYMELA BICINCTA.

Eurymela bicincta, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 510, 14, pl. 17, 11, f. 12.

23. EURYMELA OCELLATA.

Eurymela ocellata, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 511, 15, pl. 17, 11, f. 13.

New Holland.

24. EURYMELA PUNCTATA.

Eurymela punctata, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 511, 16.

New Holland.

25. EURYMELA TRIFASCIATA.

Eurymela trifasciata, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 512, 17, pl. 17, 11, f. 14.

New Holland.

26. EURYMELA PORRIGINOSA.

Eurymela porriginosa, *Signoret, Ann. Soc. Ent. Fr. 2me Série*, viii. 512, 18.

New Holland.

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Genus 2. COLOBORRHIS.

Coloborrhis, *Germar, Silberm. Rev. Ent.* iv.

1. COLOBORRHIS CORTICINA.

Coloborrhis corticina, *Germ. Silb. Rev. Ent.* iv. 73. *Amyot et Serv. Hist. Nat. Hém.* 648.

Cape.

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48. CERCOPIS STRONGII.

Cercopis Strongii, *Westw. Trans. Ent. Soc. Lond.* ii. 56, pl. 7, f. 12.

East Indies. In Gum Animè.

49. CERCOPIS TRANSVERSA.

Nigra, subtus obscure testacea; thoracis fascia antica scutelli apice pedibusque testaceis; abdomen purpureum; alæ anticæ testaceæ, antice et ad apices nigro-fuscæ, costa apicem versus albo-maculata.

Black, dark testaceous beneath: a broad band on the fore-chest; tip of the scutcheon and legs testaceous: abdomen purple: fore-wings testaceous, dark brown along the fore border and at the tip, near which there is a white spot. Length of the body $4\frac{1}{2}$ lines; of the wings 10 lines.

a, b. Java.

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4. TRIECPHORA 5-MACULATA.

Cercopis 5-maculata, *Germ. Lucas, Explorat. Scient. Alger. Atlas,* pl. 4, f. 7.

Algiers.

Page 670.

Triecphora analis = *Rhinaulax analis*, p. 667.

Page 674.

20. *TRIECPHORA*? *BICINCTA*.

Cercopsis bicincta, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 303.
Indiana, Pennsylvania, Arkansas.

Page 685.

37. *MONECPHORA* *INTERRUPTA*.

Ptyelus interruptus, p. 715.
Allied to *M. albo-atra*.

38. *MONECPHORA* *RUFO-PICEA*.

Ferrugineo-rufa, *piceo varia*; *pectus*, *abdomen et femora nigra*;
tibiæ testaceæ; *tarsi ferruginei*; *alæ anticæ ferrugineæ*, *apice*
nigræ fulvo maculatæ; *venæ flavo guttatæ*; *alæ posticæ fulvo*
unimaculatæ.

Ferruginous red, smooth, shining, partly pitchy: head small, short, much narrower than the chest, rounded in front, concave along the hind border, longer in the middle than on each side; crown much longer than broad, with a rim on each side; face pitchy, very long, flat on the disk, very minutely shagreened, thinly punctured; epistoma almost semicircular towards the face, subquadrate, and with a slight longitudinal ridge towards the mouth: shield slightly tuberculate, very convex in front, almost straight along the hind border; scutcheon with a slightly arched suture across the middle: breast black; segments with testaceous borders: abdomen nearly all black: thighs black, their tips and the shanks testaceous; feet ferruginous: fore-wings ferruginous for half the length from the base, black from thence to the tips, with a large tawny spot on each bor-

der at three-fourths of the length ; veins with a few yellow dots : hind-wings brown, with a tawny spot on each fore border. Length of the body 4 lines ; of the wings 9 lines.

a. Columbia. From M. Jurgens' collection.

Page 704.

For 5. PTYELUS OBTUSUS, read 5. PTYELUS HEBES.

Page 713.

23. PTYELUS PARALLELLUS.

Lepyronia parallella, Say, App. Long's Exp. 303.

Page 714.

24. PTYELUS SARAGOTENSIS.

Lepyromia Saragotensis, Fitch, The Senate, No. 30, 53.

Ptyelus gelidus, 714, 24.

Page 716.

28. PTYELUS QUADRANGULARIS.

Cercopis quadrangularis, Say, Journ. Acad. Nat. Sci. Phil. iv. 338, 1.

e. Lake Winepeg. Presented by Sir John Richardson.

f. Great Bear Lake. Presented by Sir John Richardson.

Page 718.

For Colenso, read New Zealand ; so also elsewhere where the name occurs.

Page 719.

36. PTYELUS BIFASCIATUS.

ddd. Nova Scotia. From Lieut. Redman's collection.

Page 724.

48. PTYELUS? OBTUSUS.

Cercopis obtusa, *Say, Journ. Acad. Nat. Sci. Philad.* iv. 339, 2.
United States.

Page 725.

50. PTYELUS? BILINEATUS.

Aphrophora bilineata, *Say, Journ. Acad. Nat. Sci. Philad.* vi.
304, 1.
Missouri.

51. PTYELUS? QUADRINOTATUS.

Aphrophora quadrinotata, *Say, Journ. Acad. Nat. Sci. Philad.* vi.
304, 2.
United States.

52. PTYELUS DISTINCTUS.

Ptyelus distinctus, *Lucas, Explorat. Sci. Alger. Atlas*, pl. 4, f. 8.
Algiers.

Page 733.

Group 1.

Genus TETTIGONIA.

Most of the species which are described in this Catalogue may be arranged in the following groups.

Head slightly rounded above and in front.

Sp. 1, 3—6, 12, 17, 21, 22, 40—44, 46—49, 58—61, 64—66, 68, 69, 71, 73—75, 81, 83, 88, 93, 97, 105.

Group 2.

Head more flat above and a little more produced in front, but not conical.

Sp. 24—33.

Group 3.

Head flat above, conical or angular in front.

Sp. 23, 35—37, 39, 45, 50—57, 72, 80, 82, 85—87, 89, 90—92, 95, 96, 99, 100—104.

Group 4.

Much like Group 2. Hind part of the head depressed across.
Sp. 34.

Group 5.

Much like Group 3. Abdomen contracted at the base. Sp. 38.

Group 6.

Head very short, slightly truncated in front. Sp. 62.

Group 7.

Body spindle-shaped. Head short, almost conical in front.
Allied to *Gypona*. Sp. 67.

Page 764.

87. TETTIGONIA QUADRIVITTATA.

Tettigonia quadrivittata, Say, *Journ. Acad. Nat. Sci. Phil.* vi. 312, 3.

Proconia quadrivittata, Vars. *a—e.*, Fitch, *The Senate*, No. 30, 55.

Tettigonia teliformis, p. 764, 84.

95. TETTIGONIA COMMUNIS.

Helochara communis, *Fitch, The Senate*, No. 30, 56.

Tettigonia herbida, *Walk. Cut. Hom.* p. 769, 95.

Genus HELOCHARA.

Helochara, *Fitch, The Senate*, No. 30, 56.

Head obtuse-triangular, broader than long, slightly broader than the thorax, the transversely striated front reflected over on the anterior sides of the vertex; vertex with a slight longitudinal stria; ocelli on the vertex farther from each other than from the eyes; tips of the male antennæ knobbed: elytra with five terminal and three discoidal areolets.

Page 773.

103. TETTIGONIA MOLLIPES.

Tettigonia mollipes, *Say, Journ. Acad. Nat. Sci. Phil.* vi. 312, 4.

Tettigonia acuta, p. 773, 103.

Page 782.

128. TETTIGONIA TRIFASCIATA.

Tettigonia trifasciata, *Say, Journ. Acad. Nat. Sci. Philad.* iv. 343, 6.

Missouri.

This and *T. trifasciata*, *Amyot et Serv.* (p. 733) may belong to distinct genera, in which case the latter may retain its specific name.

129. TETTIGONIA BASILARIS.

Tettigonia basilaris, *Say, Journ. Acad. Nat. Sci. Philad.* iv. 344, 7.

Missouri.

130. TETTIGONIA OCTOLINEATA.

Tettigonia octolineata, Say, *Journ. Acad. Nat. Sci. Philad.* iv. 340, 1.

Missouri.

131. TETTIGONIA LIMBATA.

Tettigonia limbata, Say, *Journ. Acad. Nat. Sci. Philad.* iv. 340, 2.

Missouri.

132. TETTIGONIA MIXTA.

Tettigonia mixta, Say, *Journ. Acad. Nat. Sci. Philad.* iv. 341, 3.

Missouri.

133. TETTIGONIA OBLIQUA.

Tettigonia obliqua, Say, *Journ. Acad. Nat. Sci. Philad.* iv. 342, 4.

United States.

134. TETTIGONIA COMES.

Tettigonia comes, Say, *Journ. Acad. Nat. Sci. Philad.* iv. 343, 5.

Missouri.

135. TETTIGONIA OCCATORIA.

Tettigonia occatoria, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 311, 1.

Indiana.

136. TETTIGONIA VERSUTA.

Tettigonia versuta, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 311, 2.

United States.

137. TETTIGONIA BIFIDA.

Tettigonia bifida, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 313, 5.
Vars. *a—c.*, Fitch, *The Senate*, No. 30, 55.

Indiana.

138. TETTIGONIA HIEROGLYPHICA.

Tettigonia hieroglyphica, Say, *Journ. Acad. Nat. Sci. Philad.* vi.
313, 6.

Arkansaw.

139. TETTIGONIA TRIPUNCTATA.

Tettigonia tripunctata, Fitch, *The Senate*, No. 30, 55.
New York.

140. TETTIGONIA NOVEBORACENSIS.

Aulacizes noveboracensis, Fitch, *The Senate*, No. 30, 56.
New York.

141. TETTIGONIA INIMICA.

Amblycephalus? inimicus, Say, *Journ. Acad. Nat. Sci. Philad.* vi.
305.

United States.

142. TETTIGONIA MELSHEIMERII.

Amblycephalus melsheimerii, Fitch, *The Senate*, No. 30, 61.
a. New York. From Dr. Fitch's collection.

143. TETTIGONIA SAYII.

Amblycephalus sayii, Fitch, *The Senate*, No. 30, 61.
a. New York. From Dr. Fitch's collection.

144. TETTIGONIA CURTISII.

Amblycephalus Curtisii, *Fitch, The Senate*, No. 30, 61.
New York.

145. TETTIGONIA ORBITALIS.

Evacanthus orbitalis, *Fitch, The Senate*, No. 30, 57.
New York.

Page 827.

For 39. LEDRA CULOBATA, read 39. LEDRA CULTRATA.

Page 831.

Genus TLASIA.

Tlasia, *Germ. Silb. Rev. Ent.* iv.

1. TLASIA BRUNNIPENNIS.

Tlasia brunnipennis, *Germ. Silb. Rev. Ent.* iv. 72. *Amyot et Serr.*
Hist. Nat. Hém. 648.

Cape.

Page 839.

19. GYPONA SCARLATINA.

Gypona scarlatina, *Fitch, The Senate*, No. 30, 57.
New York.

20. GYPONA FLAVILINEATA.

Gypona flavilineata, *Fitch, The Senate*, No. 30, 57.
Tettigonia 8-lineata, Var. a. *Say*.
New York.

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6. PENTHIMIA AMERICANA.

Penthimia americana, *Fitch, The Senate*, No. 30, 57.
New York.

1. CLASTOPTERA ACHATINA.

Tettigonia obtusa? *Say, Journ. Acad. Nat. Sci.* iv. 339.

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8. CLASTOPTERA TESTACEA.

Clastoptera testacea, *Fitch, The Senate*, No. 30, 53.
New York.

9. CLASTOPTERA PINI.

Clastoptera Pini, *Fitch, The Senate*, No. 30, 53.
New York.

10. CLASTOPTERA PROTEUS.

Clastoptera Proteus, *Fitch, The Senate*, No. 30, 54.

Sub-sp. 1. *flavicollis*, Vars. *a, b. Fitch.*

„ 2. *cincticollis*, Vars. *a—d. Fitch.*

„ 3. *maculicollis*, Vars. *a—c. Fitch.*

„ 4. *nigricollis*, Vars. *a—d. Fitch.*

New York.

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25. ACOCEPHALUS VITELLINUS.

Acocephalus vitellinus, *Fitch, The Senate*, No. 30, 57.
New York.

Page 856.

12. CÆLIDIA SUBRIFASCIATA.

Iassus subbifasciatus, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 310, 11.
Pennsylvania.

13. CÆLIDIA OLITORIA.

Iassus olitorius, *Say, Journ. Acad. Sci. Philad.* vi. 310, 10.
Pennsylvania.

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58. BYTHOSCOPIUS TERGATUS.

Bythoscopus tergatus, *Fitch, The Senate*, No. 30, 58.
New York.

59. BYTHOSCOPIUS UNICOLOR.

Bythoscopus unicolor, *Fitch, The Senate*, No. 30, 58.
New York.

60. BYTHOSCOPIUS SEMINUDUS.

Iassus seminudus, *Say, Journ. Acad. Nat. Sci. Philad.* vi. 307, 4.
United States.

61. BYTHOSCOPIUS LACHRYMALIS.

Idiocerus lachrymalis, *Fitch, The Senate*, No. 30, 58.
New York.

62. BYTHOSCOPIUS MACULIPENNIS.

Idiocerus maculipennis, *Fitch, The Senate*, No. 30, 59.
New York.

63. BYTHOSCOPIUS SUTURALIS.

Idiocerus suturalis, *Fitch, The Senate*, No. 30, 59.
New York.

64. BYTHOSCOPIUS PALLIDUS.

Idiocerus pallidus, *Fitch, The Senate*, No. 30, 59.
New York.

65. BYTHOSCOPIUS VIRIDIS.

Pediopsis viridis, *Fitch, The Senate*, No. 30, 59.
New York.

66. BYTHOSCOPIUS TRIMACULATUS.

Pediopsis trimaculatis, *Fitch, The Senate*, No. 30, 60.
New York.

67. BYTHOSCOPIUS ABIETIS.

Athysanus Abietis, *Fitch, The Senate*, No. 30, 60.
New York.

68. BYTHOSCOPIUS FENESTRATUS.

Athysanus fenestratus, *Fitch, The Senate*, No. 30, 60.
New York.

69. BYTHOSCOPIUS FAGI.

Athysanus Fagi, *Fitch, The Senate*, No. 30, 61.
New York.

70. BYTHOSCOPIUS NIGRINASI.

Athysanus nigrinasi, *Fitch, The Senate*, No. 30, 61.
New York.

71. BYTHOSCOPIUS TESTACEUS.

Testaceus ; abdominis dorsum fuscum ; pedes postici albi ; alæ anticæ albo guttatæ ; alæ posticæ subcinereæ.

Testaceous, paler beneath: head extremely short, as broad as the chest; crown forming an edge which is very obtusely angular; front and face flat, punctured; eyelets seated on the hind border of the face; epistoma small, almost square: chest slightly striated across; shield convex along the fore border, hardly concave behind; scutcheon triangular, almost equilateral, not extending beyond the hind-chest, with an arched suture beyond the middle: back of the abdomen brown: legs pale testaceous; hind-legs whitish; spines of the hind-shanks few and small: fore-wings testaceous, with numerous white dots: hind-wings very slightly gray. Length of the body 2 lines; of the wings 5 lines.

a. New Holland. Presented by the Entomological Club.

Page 895.

101. IASSUS ANNULIPES.

Iassus annulipes, Lucas, *Explorat. Scient. Alger. Atlas*, pl. 4, f. 10. Algiers.

102. IASSUS? INIMICUS.

Iassus inimicus, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 305, 1. Virginia.

103. IASSUS? ACUTUS.

Iassus acutus, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 306, 2. Indiana.

104. IASSUS? IMMISTUS.

Iassus immistus, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 306, 3. Indiana; Missouri.

105. IASSUS? SANCTUS.

Iassus sanctus, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 307, 5.
Indiana.

106. IASSUS? VERTICIS.

Iassus verticis, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 308, 6.
Missouri.

107. IASSUS? NOVELLUS.

Iassus novellus, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 309, 8.
Indiana.

108. IASSUS? IRRORATUS.

Iassus irroratus, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 308, 7.
Pennsylvania, Indiana, Missouri, Florida.

109. IASSUS? CLITELLARIUS.

Iassus clitellarius, Say, *Journ. Acad. Nat. Sci. Philad.* vi. 309, 8.
Indiana.

110. IASSUS EXTREMUS.

Ferrugineus; caput subtus piceo varium, inter oculos albidum; pectoris discus niger; abdomen supra nigricans; femora basi nigra; alæ posticæ limpidæ.

Pale ferruginous: head and chest thickly and minutely punctured: head flat, almost triangular, narrower than the chest, hardly concave along the hind border; its length a little less than half its breadth; underside whitish between the eyes; face and epistoma mostly pitchy: chest almost flat; shield with a slight longitudinal ridge: disk of the breast black: abdomen blackish above: thighs black towards the base: fore-wings thickly punctured from the base to the tips, reticulated towards the tips: hind-wings colourless. Length of the body $1\frac{1}{2}$ line; of the wings 3 lines.

a. Europe. Presented by M. Goureau.

58. *TYPHLOCYBA VULNERATA.*

Erythroneura vulnerata, *Fitch, The Senate*, No. 30, 62.
New York.

59. *TYPHLOCYBA AFFINIS.*

Erythroneura affinis, *Fitch, The Senate*, No. 30, 63.
New York.

60. *TYPHLOCYBA QUERCUS.*

Empoa Quercûs, *Fitch, The Senate*, No. 30, 63.
New York.

61. *TYPHLOCYBA COCCINEA.*

Empoa coccinea, *Fitch, The Senate*, No. 30, 63.
New York.

Genus. *ERYTHRONEURA.*

Erythroneura, *Fitch, The Senate*, No. 30, 62.

Head crescentiform, about as broad as the thorax ; vertex rounded down to the front without an angular edge ; ocelli between the vertex and the front, almost as near each other as to the eyes : elytra without closed areolets in the disk ; apical areolets four, rather long ; middle apical areolet simple. Exterior and middle-veins sometimes obsolete in advance of the transverse-vein.

Genus *EMPOA.*

Empoa, *Fitch, The Senate*, No. 30, 63,

Differs from *Erythroneura* in having the apical vein widely forked, forming a triangular apical areolet, which is shorter than the three other terminal areolets.

These two genera may be united to *Typhlocyba*.

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5. TYPHLOCYBA CITRINELLA.

Typhlocyba citrinella, *Tollin, Ent. Zeit. Stett.* xii. 71, pl. 1, f. 1.

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10. TYPHLOCYBA BLANDULA.

Typhlocyba blandula, *Tollin, Ent. Zeit. Stett.* xii. 71, pl. 1, f. 1.

15. TYPHLOCYBA ROSÆ.

Typhlocyba Rosæ, *Tollin, Ent. Zeit. Stett.* xii. 70, pl. 1, f. 1.

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20. TYPHLOCYBA VITTATA.

Typhlocyba vittata, *Tollin, Ent. Zeit. Stett.* xii. 72, pl. 1, f. 4.

Page 902.

26. TYPHLOCYBA SMARAGDULA.

Typhlocyba smaragdula, *Tollin, Ent. Zeit. Stett.* xii. 72, pl. 1, f. 5.

29. TYPHLOCYBA PICTA.

Typhlocyba picta, *Tollin, Ent. Zeit. Stett.* xii. 72, pl. 1, f. 4.

Page 903.

30. TYPHLOCYBA URTICÆ.

Typhlocyba Urticæ, *Tollin, Ent. Zeit. Stett.* xii. 72, pl. 1, f. 4.

58. *TYPHLOCYBA CONCINNA*.

Typhlocyba concinna, *Tollin*, *Ent. Zeit. Stett.* xii. 72, pl. 1. f. 4.

59. *TYPHLOCYBA CORYLI*, n. s.

Typhlocyba Coryli, *Tollin*, *Ent. Zeit. Stett.* xii. 70, 72, pl. 1, f. 6.
Germany.

60. *TYPHLOCYBA ROSEIPENNIS*, n. s.

Typhlocyba roseipennis, *Tollin*, *Ent. Zeit. Stett.* xii. 72.
Germany.

Tollin groups the *Typhlocybæ* thus:—

i. Elytra marginata: areolis quatuor.

T. elegantula, Ulmi.

ii. Elytra immarginata.

a. Areolis quatuor.

1. Areola elytrorum tertia basi truncata. Alæ marginatæ.

a. Alæ venis apicalibus tribus.

T. citrinella, aureola, micantula.

b. Alæ venis apicalibus duabus.

T. viridula, flavescens.

c. Alæ venis apicalibus quatuor.

T. sulphurella.

2. Areola elytrorum quarta minutissima et apice remota. Alæ immarginatæ.

a. Alæ venis apicalibus tribus, prima basi dichotoma et cum tertia apice convergentibus.

T. Hyperici, blandula, 10-punctata, Scutellaris.

b. Alæ venis apicalibus tribus, prima et tertia basi dichotomis, secunda ad 3am approximata.

T. Coryli.

3. Areola elytrorum tertia basi acuminata petiolata. Alæ immarginatæ.
- a. Alæ venis apicalibus quatuor.
T. concinna, vittata, picta, Urticæ, fulva, jucunda, tenella, adspersa, stellulata.
- b. Alæ venis apicalibus tribus.
T. Rosæ, fasciata, Quercûs, nitidula, 6-punctato, tenerrima, cruenta, lineatella.
- β. Areolis elytrorum tribus. Alæ marginatæ, venis duabus.
T. smaragdula.

APHIS TANACETICOLA.

Aphis Tanaceticola, *Wahlberg, Ofvers, Vet. Akad. Försch.* 1844, 153. *Hornsch. Arch. Scand. Beitr.* i. 177.

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28. APHIS LITTORALIS.

a. k. England. Presented by F. Walker, Esq.

29. APHIS HIRTELLA.

Insert, Distance between the first and second veins at the base rather less than half that between them at the tips; third much nearer to the second at the base than at the tip, farther at the base from the second than the second is from the first; first fork much nearer to the second fork than to the third vein, as near to the third vein as the third is to the second; second fork as near to the fourth vein as to the first fork; fourth vein hardly curved, nearer to the second fork than to the tip of the rib-vein.

30. APHIS CYPERI.

Distance between the first and second veins at the tips about thrice farther than that between them at the base; third twice farther from the second at the tip than at the base, much nearer to the second at the base than the second is to the first; first fork very much nearer to the second fork than to the third vein, farther from

the third vein than the third is from the second ; second fork a little nearer to the fourth vein than to the first fork ; fourth vein slightly curved near the base, straight from thence to the tip ; much nearer to the second fork than to the tip of the rib-vein.

a. Ireland. Presented by A. H. Haliday, Esq.

32. APHIS BUFO.

a. England. Presented by F. Walker, Esq.

Page 1050.

BYRSOCRYPTA PALLIDA, *Hal.*

Aphis alba, *Ratz. Forst. Ins.* iii. 222, pl. 13, f. 3.

Page 1095.

For antennæ recurva read antennæ recurvæ.

Page 1096.

For tenuis ore read tenuiore.

Page 1110 and 1113.

For Passim, frequens read Passim frequens.

Page 1116.

For apiculum attenuatum read apiculam attenuatam.

Page 1117.

For subrufæ read subrufa.

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